



The Voice for Illinois Forests

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Message from the President

By John Edgington

I've been associated with various aspects of Illinois Forestry for over 35 years, many of them spent teaching college students what they needed to know in order to find their place in the profession of forestry. The rest they would learn from experience on the job.

The forestry profession has strong roots in science, thanks to research that has been conducted over the years to better understand the complex relationships and processes that govern everything from how trees grow, to how forests change over time as a result of a multitude of factors.

Needless to say, a forest is more than just a bunch of trees scattered across the landscape. It's a complex working ecosystem that can be understood and carefully managed to the lasting benefit of landowners and society. The science we can handle. It's the people that sometimes get in the way.

A recent study found that millions of Americans (7%) think chocolate milk comes from brown cows. That's troubling, but not that surprising. Many people seem to think that food raised on the farm comes from the grocery store. They don't give it a second thought. We have the same problem in forestry.

Most people don't have a clue about the myriad of products that originate from the forest. We all use these products every day, but do we know much about the trees or land from which they came? Are consumers concerned at all about sustainability of the raw material source (it's renewable, but that's not a given), or the economic engine that it can represent? Those of us who are working to raise awareness and engagement in Illinois Forestry have our work cut out for us.

We need to address the disconnect between a valuable resource worth managing and the people who ultimately benefit in some way. Most of the focus is rightfully on the landowner because they have the most direct influence on the resource itself, at least during their tenure of ownership. Overall, and in the long run, we have to be concerned about the policies and programs that govern how much professional and financial support is available to keep the threads of stewardship in tact. For that we need to be a mighty voice that can influence hearts and minds.

The Illinois Forestry Association exists for this very purpose. We want as many people as possible to be aware of our role and not take it for granted that we have a bona fide Association of concerned members, advocating for forest conservation in an otherwise critically-challenged State. They may not teach this in school, or even on the job, but it is nevertheless important to our future.



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IFA Website

<https://ilforestry.org>

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May 18, 2017 Board Meeting

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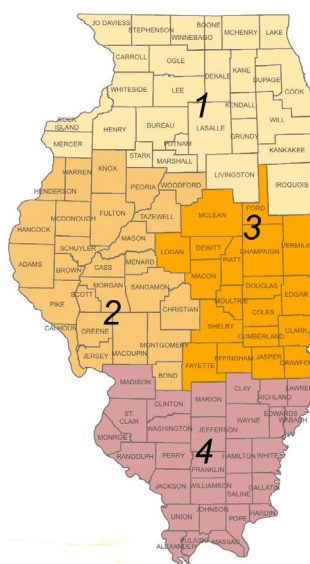
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Marketing Forestry and the IFA

After 11 years in existence, the IFA has been getting a much needed makeover. Our logo hasn't changed, but we have been working on a set of materials that can be used to recruit new members and convey what forestry and the Illinois Forestry Association are all about.

We began with the design of a new [brochure](#). For that we developed wording that emphasizes why the IFA exists - the ideals on which we stand. *What we do* can change over time, depending on the volunteers and staff we have engaged, along with what the current board deems as the highest priorities. The brochure is general enough to stand the test of time, at least until the next makeover is needed.

The rest of our marketing effort is built around the brochure, in terms of look and style. Since our logo does not contain trees, but they are arguably our strongest selling point, we used a couple of nice photographs as backdrops. We want the look of all our materials to be similar enough that our "brand" becomes recognizable. That way, people can more easily remember and associate the positive experiences we offer with the IFA - and want to be a part of it.

Making a good impression, and being consistent in how we convey information about the IFA, should help us grow an audience of supporters - not just for the Association, but for all who value healthy and productive forests in Illinois. We want our members to be proud to support forestry as a worthy cause.

IFA interns Sean O'Donnell and Nicole Romba have assisted with marketing efforts by helping us stuff 5K new [brochures](#) with member applications



PURDUE UNIVERSITY

Researchers Complete Landowner Study About Invasives - Provide Report

The results are in. Researchers at Purdue University have prepared a summary of their findings from the landowner survey administered to willing Illinois Forestry Association members last year. The 5-page report is included toward the end of the electronic (PDF) version of this newsletter, and also available as a separate download at the following address:

<https://ilforestry.org/443/resources/Documents/Publications/Edited%20Purdue%20Study%20Report.pdf>

Save the Date...

"Healthy Forests on the Edge" Conference

September 28-30, 2017
at The Morton Arboretum
Lisle, IL

12th Annual Meeting of the Illinois Forestry Association

Seeking speakers, sponsors, donors, partner organizations, and exhibitors.
E-mail ilforestry@gmail.com or call 618/949-3699 to learn more.

Special thanks to our most recent donors...

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IFA Partners with Arborists, Extension for SIU Forestry Student Training

*by Chris Evans, Extension Forester and IFA
Technical Advisory Committee Chair*

The Illinois Forestry Association partnered with the Illinois Arborist Association, the University of Illinois Extension Forestry Program, and Southern Illinois University to host a three-day Forestry Field Day and IAA Summer Conference event.

Students had an opportunity to use chainsaws, identify invasive plant species, learn the use of ropes and cabling for tree removal, and learn about some of the large equipment items used for forestry, such as aerial lifts and chippers. Best of all, each student got to see how professional arborists climb trees and the process of pruning/tree removal from the tree tops. Students even tried their hand at climbing!

The third day of the event was the IAA Summer Conference. Tree care professionals from across Illinois came to Dixon Springs to learn about a variety of topics, including proper tree felling and pruning techniques, mechanics of working in trees, invasive species identification, and working near utility rights-of-way.



Over 30 students from the Southern Illinois University Forestry Program and the Golconda Job Corps Center spent two days at the University of Illinois's Dixon Spring Agricultural Center getting first-hand experience with many of the tools of Forestry and Tree Care.



Chris Evans, shown here holding Japanese stiltgrass, conducted a field class on invasive species identification and control.



Gene Meurer, Jeremy Dunivan, and Eduardo Medina led the tree climbing exercise. Here students are practicing ascending ropes into trees.



Jeff Crisp, Right-of-Way, Fleet & Facilities Manager with Southeastern IL Electric Cooperative demonstrated large equipment used in forestry and right-of-way management. This bad boy is called a Brontosaurus.

All photos by Roger Smith, Certified Arborist and IFA Board Member. Roger helped plan and facilitate the SIU training and IL Arborist Association conference on behalf of the IFA.

Over 100 Attend Invasive Species Symposium

Illinois Invasive Species



The University of Illinois Extension Forestry Program recently hosted the fourth annual Illinois Invasive Species Symposium. This event is one of the capstone events of Illinois Invasive Species Awareness Month and provides presentations and updates on projects and programs on all taxa of invasive species impacting Illinois. The auditorium in Champaign was packed with over 110 people registering for the event.

Several presentations covered what is happening on the aquatic side of things. Dr. Eric Larson discussed his efforts to better model and predict future impacts to the Great Lakes from invasive species. Dr. Jeremy Tiemann discussed his work on exotic mollusks and how this group of invasive species impact Illinois streams and lakes, including the discovery of a new invasive clam. Greg Hitzroth updated everyone on Illinois-Indiana Sea Grant's efforts to prevent the introduction of new aquatic invasive species through trade.

Other presentations focused on terrestrial invasive plants. Paul Brewer presented on the intersection of prescribed fire and invasive species in Illinois. Chris Evans presented data on invasive plant phenology, based upon his program that uses volunteers to collect data from across the state. Mike Daab presented on how the Champaign County Forest Preserve District took a stand against Callery Pear and what they are doing to control it. Clair Ryan demonstrated new smart phone applications for mapping invasive plant species.

Lastly, Nicole Furlan presented on how USDA-APHIS PPQ is surveying for exotic wood boring insects and lessons learned from years of working with these species in Illinois and Tricia Bethke gave an update on her research on the newly found in Illinois invasive Jumping Worms.

The symposium highlighted the extent and size of the problems faced by invasive species but, more importantly, reminded everyone of the great work underway in Illinois on invasive species and the dedication exhibited by everyone involved in these projects.

Kevin Rohling Joins Extension Forestry Team



The University of Illinois Extension Forestry Program welcomes Kevin Rohling to the program. Kevin recently started work at the Dixon Springs Agricultural Center as a Forestry Technician. Kevin has years of experience working in Illinois and brings to the program expertise in forest management, prescribed fire, and herbicide use. Most recently he served as Coordinator for the River to River Cooperative Weed Management Area (CWMA). He will be assisting in the management of the 1,200 acres of forest at the Ag Center, establishment of forest management demonstration areas, and active research underway at the Ag Center on forest management, invasive species control, and agroforestry.

Illinois Society of American Foresters Members Gather for Work Day



Dan Schmoker, Shawna Meyer (Michigan SAF guest), Mark Brown, Paul Deizman, and Chris Whittom participated.

Members of the Illinois Chapter of the Society of American Foresters enjoyed a day of service, learning and fellowship at a new park site along the South branch of the Sangamon River. They cut, sprayed and killed invasive species, including autumn olive, bush honeysuckle and garlic mustard. A short business meeting was conducted during lunch time at the Rochester library. Special thanks to Dan Schmoker for making arrangements, and for supplying glyphosate for the sprayers.



Dan Schmoker has worn many hats in Illinois forestry. Here he dons a hard one with a face mask as he operates a brush cutter, followed by chemical treatment of invasive plants at a park site near Rochester. The IL-SAF Chapter is grateful for Dan's faithful participation over the years.

Tree Farm Field Day Held at Western Illinois Youth Camp

by Ed Anderson

A large crowd attended the Illinois Tree Farm field Day on May 6th at the Western Ill. Youth Camp near Jacksonville.

Attendees were able to learn how to safely fell trees, treat and control invasives, manage hardwood stands, improve turkey habitat, maintain chainsaws and ID vines and trees.

The Western IL Youth Camp site was ideally suited to host the day with its facilities and diverse timber stands.



Tony Kreke and Ray Herman share their experience with invasive species control.



A portable sawmill operated by Bob Grace produced lumber from logs donated by Greg Littleton. Greg also demonstrated various logging and brush clearing equipment. Below, Greg positions a log on the mill.



Two 25+ year Tree Farms were recognized for their efforts -- Dr. Charles Wilson on the left, and the Kevin Massie family on the right.



Above - Jay Hayek covers the importance and methods of chainsaw maintenance.

Left - Stacy Lindemann talking turkey with a group of interested landowners.



John Torbert demonstrates a plunge cut.

State Forester Update

by Tom Wilson



State business is moving forward to fiscal year 2018 on July 01 and the Forestry Division continues to work with the Department leadership to maintain a working operational forestry budget. Our Office of Resource Conservation is moving forward with priority or essential hiring to fill natural resource positions including some in forestry. Two District Forester positions are currently open and posted for our Savannah, IL and Fairfield, IL field offices. We are hopeful a Regional Forester will be authorized for an upcoming posting. At this point in time we are unsure if and how much "cost-share" will be authorized for FY 2018 for assisting participating FDA landowners to develop and implement forest management plans.

Forestry Partners statewide can anticipate an updated Illinois Forest Action Plan (IFAP) to be released for comments. Public and partners will be invited to comment via a poll or survey soon after June 15, 2017. The IFAP priorities are the eligibility basis for a wide range of partners, including the DNR itself, to access Forest Service competitive forestry grant funds. Ultimately the "new" document needs approval of the DNR Director, the governor's Forestry Development Council and the USDA Forest Service. The 10-year plan is comprehensive clearly outlines critical and important concerns and priorities for the forest resources of our state and the related economic, social and environmental values of our forest resources.

On March 31, 2017 the state's Joint Committee on Administrative Rules (JCAR) gave final approval an updated and expanded set of administrative rules guiding the Illinois Forestry Development Act. The forestry division, who championed and developed these rules, is excited to announce an

expanded suite of environmentally important practices that qualify for cost-share. Best Management Practices for water quality, Rx Fire as a management tool, and Invasive-Exotic species control and eradication have been added. The new rules also included slight changes to forest management plan requirements, increased cost-share rates, and other changes to the benefit of all parties and our forest resources statewide.

In April of 2017 the first commercial timber harvest - integrated under a comprehensive forest and habitat management plan - at our Trail of Tears State Forest in Union Co. Illinois was complete. Associated and necessary pre- and post-harvest management activities on the 194-acre site and on the greater 900-acre demonstration compartment included a detailed forest inventory, prescribed burning of the ground cover/ forest floor, invasive-exotic plant control, and understory thinning of overstocked/ unwanted sapling and pole sized stems.

The Division of Forest Resources, despite the likely hiring two replacement District Foresters for the two recently vacated offices, continues to operate at a staffing level well below critical mass. The hiring of 10 new District Foresters to minimally staff the 22 forestry districts remains an urgent need. The average forestry districts, now over six counties per forester, are far too large creating a shortcoming that negatively affects everyday business between foresters, landowners, and businesses. Professional private consulting foresters trying to efficiently manage Illinois forest landowner properties and operate and expand as private businesses are particularly affected. The division appreciates the patience as well as it understands the impatience of the many affected landowners, foresters and businesses.

The June issue of the *Forestry Source*, published by the Society of American Foresters, featured a story about the oak restoration work ongoing at Trail of Tears State Forest:

<https://ilforestry.org/443/resources/Documents/Publications/Forestry%20Source%20June%202017%20Cover%20plus%20page%209.pdf> (Page 2 of pdf)

Legislative/Policy Report

by Dave Gillespie



The IFA has been watching a number of bills this year as they proceed through the Illinois Legislature.

The bill we watched most closely was HB 2488, which amended the language that regulates the IDNR nurseries to allow them to sell native seedlings to private nurseries so that seedlings can be grown to larger trees and used to replace ash trees lost to the Emerald Ash Borer infestation.

The bill was sponsored in the House by Rep. Norine Hammond. It passed out of the House Ag and Conservation Committee on 3/7/17, and later passed out of the House of Representatives and was sent to the Illinois Senate on a vote of 110-0 on 3/15/17. There the Chief Sponsor was Senator Jil Tracy. The bill was assigned to the Senate Ag Committee. It passed out of the Committee on 5/4/17, and the Illinois Senate on 5/19/17 on a vote of 53-0. The bill then moved on to the Governor's office where it awaits his signature. This is great news for the IDNR nursery.

The other bills the IFA has been watching -- HB 3458, which creates the Illinois Natural Areas Stewardship Act, and SB 1784, which amends the Wrongful Tree Cutting Act -- did not make it out of committee and could be reintroduced at a later session.

The Department of Natural Resources' budget bill, HB 3997, is still bound up in the budget process that has been plaguing Illinois. We all hope that a budget compromise can be arrived at soon, and we can move forward with forestry in Illinois.

If you are interested in tracking legislation through the Illinois General Assembly, visit www.ilga.gov. Enter the bill number in the box on the left. You can also search by key word.

Open for Business: The Mason State Tree Nursery

by Dave Horvath, IDNR Nursery Program Manager



I don't know how many people follow the ups and downs of the State of Illinois Budget negotiations (or some might say "lack of"), but this commentary on the State Nursery Program goes back to September of 2015.

In September of 2015, it was decided that, in order to save the State money, the Division of Forest Resources Nursery Program would end. The State Nurseries were to be closed and staff would be laid off or transferred to other positions. Thus began a more than 16 month period of limbo for Forestry's Nursery program.

During this time a series of debates, position papers, legal maneuvering and legislative discussions took place, culminating in with the decision in late January, 2017 to keep the Mason Nursery open and the staff in place. IDNR Director Wayne Rosenthal successfully argued in favor of the Division of Forest Resources and was able to stop the Nursery closure and staff re-assignments.

This welcomed reprieve had to be tempered with the fact that the Mason Nursery had been operating on a bare-bones budget during this time. Most bare-root seedling nurseries like the Mason Nursery are on a one to two year production cycle.

What this means is that these Nurseries plan their operations one to two years in the future. The crop seed you plant today won't be ready for harvest until one or two years has passed. Unfortunately, due to circumstances surrounding the pending closure, no crop was planted at Mason Nursery in

the fall of 2015. This crop should have grown through the summer of 2016 and been ready for this spring. Because no crop was planted in 2015 there were no one year old seedlings available in 2017. However, we were fortunate enough to be able carry over some of the spring 2016 crop into 2017 and have some seedlings available as 2-year-olds this spring.

Spring 2018 should see better inventory and more variety of seedlings as we were able to obtain funding to plant a crop in the fall of 2016.

One area that the Mason Nursery has been involved with for at least the last 30 years is the production of local Illinois ecotype wildflowers and prairie grass seed. With current interest centered now on improving habitat for the Monarch butterfly and pollinators in general, the Mason Nursery is well positioned to produce seed and plants to meet the demand for these species.

Our expertise in this area might have been a contributing factor in the decision to keep the facility operational. Native forb seed and plant production continued through our "dark months" as this material required less commodity dollars to produce. Spring 2017 was the Mason Nurseries first year to offer a Monarch/Pollinator seed mix packet. This packet went over very well with several hundred being sold to the land managers and the public.

We are hopeful the future will bring a brighter outlook for the Division of Forestry's Nursery Program. In addition

to producing bare root native trees and shrubs for the landowners of Illinois the Mason Nursery has partnered with municipalities to provide native oak seedlings for replacing Ash trees that have been removed due to the Emerald Ash Borer. The Mason Nursery is also working with the Pollinator Partnership on a multi-state effort to increase Monarch and pollinator habitat by cleaning native wildflower seed for planting in Ohio, Indiana, Illinois, Arkansas and Michigan. Plans are also being made to partner with the Illinois Department of Transportation and provide them native Illinois ecotype seed for Monarch and pollinator habitat.

Another positive sign that things are looking up for the Nursery Program is the passage of House Bill 2488. House Bill 2488 is currently on the Governor's desk and would allow the Mason Nursery more flexibility in developing a more non-traditional customer base for our products.

Mason Nursery is the most diverse, State run plant production facility east of the Mississippi. It's continued operation is not only a benefit to the Department of Natural Resources but to all the people of the State of Illinois. We are happy to be here and operating again.



Oak seedlings - Spring 2017

Cows Make Poor Foresters

by Ed and Elizabeth Anderson, Morgan County Tree Farmers



As we assumed ownership and management of the family farm, we began to look at our woodland areas that had been a part of a livestock operation for many years. We observed and began to understand the ecological damage that can occur to forest land as we developed and began to implement a forest management plan. A decision was made to begin a fencing program to help us sustain the forest resource and improve water quality, two of our forest management goals.

We had contemplated fencing off the stream that was bordered on one side by pasture and a woodland on the other for many years. The impetus came as we accepted the fact that we were never going to be able to chainsaw or girdle (chainsawing a ½ inch deep ring around the trunk) the many hedge and honey locust trees that had taken over. Having a bulldozer come in and clear the area and adjacent overgrown pasture areas was the practical answer.



This resulted in a wooded tract that we could now fence off and replant to a diverse mixture of oaks, hickories and walnut. In addition, we were able to restrict cattle access to those stream areas that are fenced and graveled with an underlayment of geotextile fabric.

The benefits of excluding livestock from the stream are multi fold. It stabilizes the stream's banks and therefore reduces erosion. Water quality is improved which in turn protects herd health and habitat for fish and wildlife. Lastly, downstream neighbors will appreciate your stewardship.



Our experience in removing invasive species in another woodland had produced spectacular results in restoring plant diversity. Where bush honeysuckle, autumn olive and multiflora rose once dominated the understory, we now had a natural healthy understory of small hardwood trees, and wildflowers.

The changes were dramatic and quickly realized. The invasives had resulted in a forest that had no regrowth and little forest floor cover. The main culprit was the bush honeysuckle that shades and chemically inhibits other plants.



Anyone with woodlands can see the impact of these invasives. Just go for a walk and look at the forest floor where these invasives are present. There will often be just a sparse leaf litter or only bare soil. You can squat down and look through the forest where these plants dominate.



Our method of removal was multi-faceted. We cut the largest invasives then stacked them in piles that provide habitat for many kinds of wildlife. The cut stumps were treated with a 50/50 % of glyphosate and water. The next pass used a 1.5% leaf spray of glyphosate on the smaller plants. The best time to do this is in early spring or late fall since the bush honeysuckle is the only green plant at this time. Spray drift is not a factor at this time. However, we often spray throughout the summer in the heavy infestations since there is little under the invasive plants. You can also easily hand pull the small honeysuckle since it is shallow rooted.

While our creek fencing project is in its initial stages, studies of other exclusion projects have shown a significant improvement in wildlife diversity. As the understory fills in, it creates prime feeding and shelter opportunities for fledgling birds such as the Kentucky Warbler, White-eyed Vireo, Carolina Wren and Tufted Titmouse. Girdling undesirable trees as part of our timber stand Improvement (TSI) plan has increased red-headed woodpeckers and other cavity nesting birds using the dead standing trees.

Our future plans are to interplant various oaks and hickories in the upland area and walnuts and other mixed hardwoods in the lowlands. These practices will achieve our goals of improving pasture, water quality, wildlife habitat and creating a healthy, higher quality woodland. More information on managing woodlands can be found at <https://www.treefarmssystem.org/illinois>.



U.S. Fish and Wildlife Service

Partners for Fish and Wildlife

Private Lands Conservation for Illinois

Background

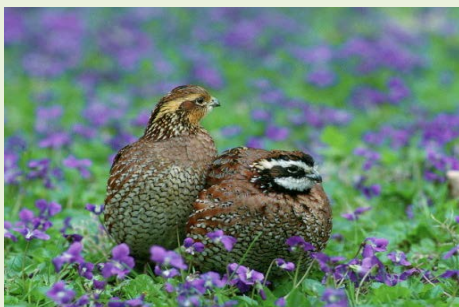
The Partners for Fish and Wildlife (PFW) program was established in 1987 to assist individual landowners, tribes, organizations, municipalities, and corporations in improving fish and wildlife habitat on their private lands and waters.



Northern Pintail
Photo by Peter Mickelson/USFWS

The Illinois landscape has changed dramatically due to land conversion in recent times. Because of this, less than 1% of prairie, and less than 10% of wetlands, now remain on the Illinois landscape. This habitat loss has impacted wildlife and fish populations. For example, northern bobwhite numbers have decreased an average of 3% per year since the 1960's, as a direct result of habitat loss.

Considering more than 95% of Illinois is in private ownership, the PFW program recognizes the importance of private lands in conserving native fish and wildlife. For this reason, the PFW program is dedicated to building conservation partnerships on private lands.



Northern Bobwhite Quail
Photo by Steve Maslowski/USFWS

Improving Fish and Wildlife Habitat

Any land, that is not state or federally owned, is potentially eligible for a PFW habitat restoration project. Examples of PFW projects include: wetland and prairie restoration, improve riparian corridors, stream bank stabilization, and forest stand improvement.

The PFW program can provide voluntary cost-share incentive and technical assistance for habitat restoration projects. In addition to financial assistance, the PFW program can provide custom restoration and management plans tailored to your specific restoration goals.



Monarch Butterfly
Photo by Mike Budd/USFWS

Partnerships

Only through partnerships can the demand for habitat restoration in Illinois be met. Because of this great demand, the PFW program strives to not only partner with private landowners, but with other conservation entities as well.

These partnerships with local, state, and national conservation organizations help contribute expertise, funds, materials, equipment, and labor to restoration projects.

5 year conservation goals

- 450 acres wetland habitat
- 3,200 acres upland habitat
- 5 miles riparian corridor
- 2.5 miles stream channel restoration



Restored Prairie
Photo by Gwen Kolb/USFWS

Getting Started

A quick phone call or email conversation will begin the process. Typically, a biologist will meet with the landowner on-site to determine eligibility for cost-share and compatibility with the U.S. Fish and Wildlife Service's mission. Regardless of the habitat type, all projects have the overall goal of improving habitat for trust resources, while meeting the goals of the private land holder.



Wetland after restoration efforts from the Partners for Fish and Wildlife Program Photo by Mike Budd/USFWS

Project Conception and Planning

Once the landowner agrees to move forward with a project, it is then time to coordinate the actual work. Projects that will need heavy equipment typically require contractors. For example, when a wetland needs to be restored, soil must be moved to create a berm, or a basin, for water retention. Receiving multiple estimates from contractors helps save taxpayers' dollars and leverage funds to complete projects in a cost-effective manner. Once the plan is in place, the biologist then coordinates with the private landowner/group, any partnering agencies, and contractors to make sure the work is completed in a safe and efficient manner.

Management and Maintenance

Great things happen over time. This is especially true when it comes to habitat restoration.

After the initial work phase is complete, the biologist maintains contact with the private landowner/group throughout an agreed upon time. This ensures each project is maintained and managed properly to provide the suitable habitat and resources the targeted wildlife requires.

Landowner Highlight

One of the projects currently underway in Southern Illinois is a forest stand improvement and invasive species removal at Donald Stockdale's property in Johnson County. Before Don bought the property, the land had been pastured. After the animals were pulled from the fields, the woodlot grew up into mostly undesirable species. Historically, forest in Southern Illinois consisted of an oak-hickory composition, which the property does possess; however, as Don quickly realized, those species needed assistance if they were to thrive on his land.

The first time Don contacted the Partners for Fish and Wildlife program, it was clear he had a true passion for his land and nature. Upon the initial site visit, Don showed me places where he had been vigorously working 3-4 hours a day, spraying invasive species such as bush and vine honeysuckle, autumn olive, and multiflora rose. He was also clearing undesirable tree species, such as sweetgum, which he has declared war on. Don repeatedly states he "will never, ever let the property return to what it once was" and "the work I have done will not be wasted".

The habitat work the Partners program is assisting with will not only help Don achieve the vision he has for his land, it will also provide habitat for federally listed species, such as the endangered Indiana bat and threatened northern-long eared bat. The Partners for Fish and Wildlife program is proud to work with motivated private landowners, such as Donald Stockdale.

Quick Facts

- The Partners for Fish and Wildlife program provides free technical assistance, and covers all programs in your area, including Farm Bill practices.
- The land stays in complete control of the private landowner after signing an agreement.
- The landowner's equipment, time, and labor can be used as matching funds towards an agreement.



Donald Stockdale spraying invasive species on his property. Photo by: Carol Stockdale/Landowner



* Shaded area of map represents PFW program focus areas.

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Is There a Fungus Among Us?

DON'T CONFUSE FOLIAR FUNGAL LEAF DISEASES WITH OAK WILT OR OTHER TREE PROBLEMS

by Dr. Frederic Miller, Senior Research Scientist, The Morton Arboretum

As I am writing this article in late May, 2017, I am reminded of the spring and summer of 2016. So far, we have the 2nd wettest April on record for Illinois, along with a wet May. As I have traveled around the state the past few weeks, I have seen plenty of flooding of farm fields and forest lands. For the most part, temperatures have been cool to moderate with lots of humidity. Reflecting back on 2016, foliar tree diseases were quite widespread and present throughout the growing season. Who knows what the rest of summer, 2017 will bring, but if it is anything like 2016, we may see a repeat of foliar leaf diseases. Most foliar fungal leaf diseases thrive on cool, wet weather with high humidity and include apple scab on common apple and crabapple, and anthracnose on maple, oaks, ash, and sycamore. However, there are other tree diseases that can look very similar or even mimic foliar diseases such as oak wilt and bacterial leaf scorch. In this article, I want to focus on a couple of common fungal leaf diseases and how to distinguish them from oak wilt.

First is apple scab which is found on common apple and crabapple causing dark to olive green blotches on the leaves (Figure 1). Heavy scab levels can cause premature leaf drop by mid-summer, as seen in 2016. 2016 was a bit different from other years because most crabapples did not re-foliate because of the continued high humidity and precipitation throughout July and August. This resulted in high inoculum levels (ie. lots of spores) well into early fall. Isolated years of heavy apple scab are usually not detrimental to trees, but repeated multi-year defoliations can predispose plants to invasion by borers (i.e. flat-headed apple tree borer) and cankers. Fungal foliar sprays can be applied, but require a very regimented schedule.



Figure 1 - Apple scab

Our second group of diseases, anthracnose, may become heavy again this year and not just on sycamores. Anthracnose is a general term for many foliar diseases attacking a wide range of hosts including, but not limited to, sycamore, maple, oak, ash, and dogwood (Figures 2-5).

In most years, sycamores are not fully leafed out until mid-summer and are characterized by a small group of leaves in the very top of the tree, with the rest of the tree canopy nearly bare.

Anthracnose is a foliar disease, infecting the foliage and causing black necrotic areas and is generally host specific. Weather conditions promoting anthracnose are 50-55°F temperatures along with high humidity, and rainfall. The fungus may also infect twigs. Susceptibility differs within hosts. For example, white oaks are more susceptible to oak anthracnose compared to red oaks.

In the case of sycamore anthracnose, the fungus also infects the twigs resulting in stem cankers (Figure 4). Spores produced from fruiting bodies associated with twig cankers have a short trip from the twig to the new foliage making leaf infection much more severe. In addition, twig infection on sycamore may result in witch's brooms with short internodes and a "bushy" growth habit and are easy to see during the winter months (Figure 5).

Several tree diseases and abiotic factors may resemble anthracnose. Early in the growing season, late spring freezes and frosts may kill new growth. All the new leaves will be affected and the entire leaf will probably be brown and may be killed. In addition, frost damage will extend across a wide variety of species and be very apparent in low lying areas with cold air drainage. New growth will look normal.



Figure 2 - Oak wilt symptoms on the left, oak anthracnose on the right



Fig. 3 - Sycamore anthracnose leaf necrosis



Fig. 4 - Sycamore anthracnose twig canker



Fig. 5 - Sycamore anthracnose witch's brooms

Most foliar fungal leaf diseases, including anthracnose, are not lethal to trees. However, repeated defoliation events over a number of years can lead to tree stress and predisposition to secondary lethal agents like cankers and borers.

Oak wilt on the other hand is lethal to oaks, and trees must be treated to insure survival (Figure 6 and 7). Oak wilt is considered a fungal vascular disease and which plugs up the water conducting tissues (xylem) causing the tree to wilt. In contrast to anthracnose, white oaks are more susceptible than red oaks, but all oaks can die from oak wilt. Affected leaves turn brown from tip and outer leaf edges and premature leaf drop and defoliation may occur. Keep in mind, anthracnose can be confused with oak wilt later in the season. Be sure to properly diagnosis the problem before employing management options.

Listed below are some general diagnostic tips and management options for comparing and treating for anthracnose and oak wilt diseases. The only way to be absolutely sure whether you have oak wilt or oak anthracnose is to send in samples to a plant clinic to confirm which fungus is involved. It is possible for a given tree to have both oak wilt and anthracnose at the same time.

OAK WILT SYMPTOMS AND SIGNS (Figures 2, 6 and 7)

- Red oaks are very susceptible, but all oaks can be killed
- Spreads through root grafts and bark beetles
- Caused by vascular wilt fungus and produces fungal mats under bark
- Red oaks can die within one year while white oaks may take years
- Leaves turn brown from tip and outer leaf edges
- Premature leaf drop and defoliation occur

OAK ANTHRACNOSE SYMPTOMS AND SIGNS (Figure 2)

- Fungus infects twigs, buds, and leaves and distorts and kills leaves
- Considered a minor stress and trees usually recover
- Most severe on white oaks, red oaks are mildly affected
- Fungus is most prevalent during cool, wet springs and summers
- Leaves have irregular, water-soaked blotches that start along veins
- Leaves become distorted, cupped, and drop from tree



Figure 6 - Oak wilt



Figure 7 - Oak wilt

MANAGEMENT OPTIONS FOR OAK WILT

- Early diagnosis required and prevention is best
- Do not prune oaks from April to June
- Break root grafts between healthy and diseased trees
- Injections of fungicides may be effective for white oaks with <30% crown dieback
- Prune out infected branches
- Sanitation: Split and dry oak firewood and chip and burn small branches

MANAGEMENT OPTIONS FOR ANTHRACNOSE DISEASES

- Fungicide injection treatments every 2 to 3 years, may be effective, if warranted
- Foliar fungicide foliar sprays every two weeks, may be effective, if warranted
- Use host plant resistance by planting 'Ovation' and 'Exclamation' London plane trees which are less susceptible to sycamore anthracnose (Figure 8)
- Reduce other stresses



Figure 8 - London plane tree

Planting a Legacy



Mike and Lynn McMahan's granddaughter Maggie is learning to love trees. She and Mike went out to her "fort" in the woods just before Arbor Day. It is actually just a clump of trees on the edge of the bluffs looking down some 40 feet to a creek that runs through the McMahan property. Together they planted 5 sycamore trees on the edge of her fort. She helped plant the trees, install the protectors, and water them. She is anxious to see them start growing

– as Mike is, but he admits thinking a little more deeply about the experience. He wants to see the "why" of forestry start to grow inside of her heart, like it has in his. Hopefully, someday she will think back on this "regular" day in her life and remember what her grandpa taught her about trees, and want to carry on a family tradition of stewardship.

Do you have one or more photos with a story to tell? Send them to Stephanie at ilforestry@gmail.com. Thanks, Mike!

Learning to Grow

Mike McMahan is learning how to grow trees from seed, partly by trial and error. He brought a few freshly sprouted acorns to the last IFA Board meeting, and had a chance to consult with Dan Schmoker over lunch. Dan offered a few pointers and advised Mike to get them in the ground as soon as possible.

As the Wood Turns

We will miss Dan's sage advice and wisdom on the IFA Board, but wish him and wife Dottie the best as they relocate to Texas. They plan to come back and visit, and Dan does plan to participate in our annual meeting September 29-30, at The Morton Arboretum. Please join us then as we properly honor Dan's contributions to Illinois forestry.



Out with the Old? Not So Fast.



"If you are a cavity nester - like a woodpecker, wood duck, etc. - then this tree is priceless. Keep 3 to 5 den trees per acre. Make them different sizes."

- Dan Schmoker

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Phishing for Timber

by Stephanie Brown

Phishing is a term that normally refers to the unethical practice of tricking computer users into clicking on a harmful link or revealing information that can be used against them later. The offer is tempting. It sounds too good to be true. Most people know better, but a few take the bait and learn the hard way.

One of our members recently passed along a letter they received from an area timber buyer. The company appears to be phishing, or at least fishing, for landowners who have never heard about the perils of diameter limit cuts. In fact, the offer uses accepted terms like "Sustainable Forestry" (printed in bold, no less) to lead the reader to think that harvesting all trees of a certain diameter and larger (measured where on the tree, exactly?) is the best way to go. They only use "Selective Harvesting Methods" to bring that light touch. This company is sending out a lot of letters in hopes of getting a few respondents who simply don't know better - like the previous clients who appear to have provided testimonials of how pleased they were with the service.

Make no mistake about it. This company's marketing campaign is aimed at unsuspecting landowners who will let them high grade their timber. Cut the best and leave the rest. The "offer" even includes misleading supporting references from DNR and University sources, as if to say these methods are fully endorsed by forestry professionals.

Sellers beware. In MANY instances where diameter limit cutting is implemented it can have long lasting negative affects on the forest. This practice can, and often does, result in trees being harvested that have not met their economic or biological maturity. It can, and often does, result in trees *not* being harvested that really should be removed. High grading usually results in lower percentages of desirable tree species on the site (the residual stand), and relatively more undesirable and defective trees (because mostly quality trees were harvested).

History of Conservation in Illinois

by Dave Gillespie, IFA Secretary

This account of the history of conservation in Illinois was written by Joseph P. Schavilje in 1941. This 19th installment begins where #19 ended, in Part II - History of Forest Conservation

The D. Hill Nursery Company at Dundee, Illinois was established in 1855. The original nursery consisted of about five acres, and the principal crops raised were European Larch and Norway Spruce. These were sold to farmers and other planters, mostly local customers. Farmers dropped in from several miles distant each spring and obtained their supply of evergreen trees for windbreaks and protection around the farm homes. This nursery has continually increased the number of varieties grown and also the acreage under cultivation. Among the other early nurserymen in Illinois are Swain Nelson and Sons, whose nursery was established about 1856 near Chicago. Also the firm of Arthur Bryant and Son at Princeton, Illinois was established in the early fifties.

(To be continued in the next issue)

Most timber buyers and loggers are good, ethical people simply trying to make a living. It's just business when they want to get the best deal possible. What's disturbing about the letter in question is the way it confuses our message - using positive words to sell questionable practices. It's hard enough to spread the word about forestry and forest management without someone purposefully conflating sustainable forestry with high grading. Good grief!

Please. Get a second opinion from a professional forester before you accept an unsolicited offer like this. Research has shown that forester-assisted timber sales bring more than enough added income to justify the cost of hiring a consultant. You'll be protected by a contract negotiated with a reputable buyer, and happier with the results.

"FIND A FORESTER" on our [home page](#).



Another summer is now upon us. Planting time is over and it is now time for long, hot or at least very warm days, with cool nights a few weeks away. Summer also means county fair time, followed by the State Fairs at Springfield and Du Quoin, perhaps a vacation trip with the family to somewhere and a picnic or two. For most people, summer is the best time of the year and why not make the most of it.

In our last column we discussed planting trees on farms as a conservation measure. Since then, items have appeared in the farm press regarding using trees around confinement livestock facilities as a means of enhancing the environment. Not only do trees improve the appearance of such facilities, but they act as wind breaks, provide shade during hot weather and even help control odors from manure containment facilities. They can also be a security measure, keeping the facility "out of sight and out of mind".

For those who may be planning a confinement livestock enterprise, you may want to look at planting trees and native bushes around your facility. If so, check with someone knowledgeable with trees and shrubs native to the area and locate a source for this material. The price should be in line with other sources. Bare root stock is available from the Illinois Department of Natural Resources at little to no cost. Talk to the district forester about obtaining it. There are some strings attached to trees from state stock, generally in regard to selling these trees with the roots attached: i.e. Nursery stock.

In addition, you may want to consider planting a couple of rows of trees around other buildings, such as machine sheds, storage sheds, or similar out buildings. Properly placed, trees will shade, protect from wind and snow and provide security for the reasons stated above. Good landscaping will add value to the homestead.

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Save the Dates: September 28-30, 2017 - "Healthy Forests on the Edge"
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BOUNDARY	PLANNING
DISEASES	PROPERTY
EASEMENTS	RIGHT OF WAY
ENDANGERED	RIPARIAN
ESTATE	RURAL
EXOTIC	STREAM
FENCING	SUCCESSION
FIRE LINES	SURVEY
HABITAT	TAXES
INCENTIVES	TENURE
INDUSTRY	THREATS
INSECTS	TREATMENT
INVASIVES	URBAN
LEGACY	WATER
MARKETS	WETLAND
NATIVE	WILDLIFE

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Private woodland owners and invasive plant management in Illinois

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An invasive plant is a non-native plant species that is introduced into an ecosystem and can cause environmental, economic, and human health impacts (National Invasive Species Information Center 2017). There are two general types of invasive plants: woody and herbaceous. Some of the woody invasive plants in Illinois include Asian bush honeysuckle, European buckthorn, multiflora rose, and the Bradford pear, most of which were introduced into the United States for horticultural purposes; some of the herbaceous invasive plants in Illinois include garlic mustard, Canada thistle, and Kudzu, many of which were introduced through contaminated crop seeds and soils (Reichard and White 2001). While not every non-native plant is invasive and harmful, some of them can become invasive and harmful because they can produce large amounts of seeds for dispersal; can compete aggressively with native plants for space, sunlight and water; may not have natural enemies or pests; and can tolerate adverse environmental conditions such as drought (Swearingen et al. 2010; Hellmann et al. 2008; Ruiz and Carlton 2003; Simberloff et al. 2013).

When established, invasive plants can displace native plants, reduce wildlife habitat, and reduce forest health and productivity (Fei et al. 2014; Paine 2016; Rotherham and Lambert 2013; Simberloff et al. 2013). Several invasive plants such as garlic mustard and tree of heaven can alter the chemical composition of the soil, making it difficult for other plant seedlings to grow. Invasive plants are also aided by disturbances such as white-tailed deer, which disturb, trample or eat the native vegetation and consequently create more favorable conditions for invasive plants to establish and thrive (Early et al. 2016; Waller and Maas 2013). In addition to the potential ecological harm, invasive plants can also have significant economic impacts. Broadly speaking, invasive species are costing the American public an estimated \$137 billion (or about \$1,300 per household) annually due to productivity loss and management costs such as herbicide application (Pimentel et al. 2005).

Despite the many negative impacts of invasive plants, there are few laws that regulate the sale of these species. In Illinois, the Illinois Exotic Weed Act and the Illinois Noxious Weed Law prohibit the sale of 36 invasive plants even though there are an estimated 970 documented invasive plants in the state (Schlessinger and Endres 2016). As a result, many invasive plants are still being sold at horticultural centers and nurseries (Gagliardi and Brand 2007).

It is very important to know what private woodland owners know and are doing to control invasive plants on their properties. In the United States, 36% of woodlands are owned by 10.7 million private individuals and families (Butler et al. 2016); and in Illinois, 83% of woodlands are owned by 170,000 private landowners (Crocker and Butler 2016). Although each landowner is only responsible for making decisions about invasive plants on his or her property, together their decisions to manage or not to manage will determine the success or failure of invasive plant control across the landscape. Therefore, invasive plant control is not an individual problem but a community-scale and landscape-scale problem that transcends property lines.

The Policy and Human Dimensions Lab in the Department of Forestry and Natural Resources at Purdue University recently completed a study focusing on invasive plant management on private woodlands in Illinois. An online survey was distributed to 737 members of the Illinois Forestry Association (IFA) and a total of 255 useable responses were received, representing a response rate of 35%. The objective of the survey was to understand IFA members' current knowledge and awareness of invasive plants, the actions that they have taken to control invasive plants, the types and sources of information they have used to make invasive plant management decisions, and the challenges and opportunities they face. Below is a brief summary of the survey results from the survey.

Who are the private woodland owners in Illinois?

The average age of our respondents is 65 years (range: 33–88 years old). A little over a half of the respondents were retired. Eighty-six percent were male and 12% were female. Over 70% of respondents had a graduate or bachelor's degree. Similar to the private woodland owners nationwide (Butler et al. 2016), most respondents stated that they own their woodlands for non-consumptive reasons, and on average only 2% of their annual household income was derived from their woodlands. Their top five reasons for owning woodlands were: (1) to enjoy scenery or beauty, (2) to protect nature and biological diversity, (3) to protect or improve wildlife habitat, (4) to protect water resources, and (5) to pass land onto their children. In addition to being an IFA member, many respondents were also members of the Tree Farm,

Walnut Council, and Northwest Illinois Forestry Association. In terms of their woodlands, respondents reported owning between 3.5 and 2,000 acres, with an average of 97 acres. Thirty-three percent of respondents were the single owner of their woodlands, 54% owned their woodlands with their spouse or another individual, and the remaining 13% owned their woodlands jointly with multiple people. On average, respondents had owned their woodlands for 23 years, although there were a few new owners as well as long-term owners with more than 50 years of land tenure. Fifty-four percent of respondents lived within a mile of their woodlands, while 46% lived more than a mile away from their woodlands. Seventy-three percent of respondents stated that their woodlands were either previously or currently part of a farm. Most respondents (82%) bought their land, and the remaining inherited or received it as a gift. Eighty-nine percent of respondents reported that they had a written management plan, and about half also enrolled at least some of their woodlands in the Illinois Forestry Development Act.

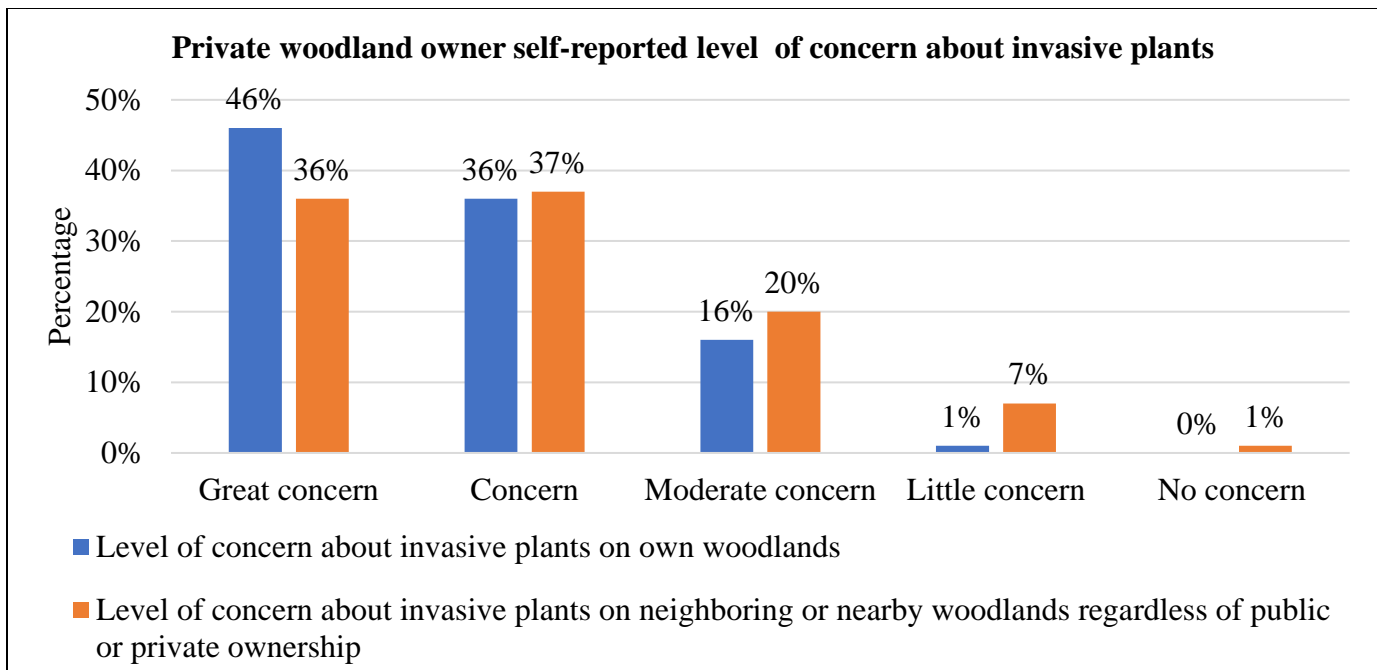
What do private woodland owners know about invasive plants in Illinois?

Overall, most respondents reported having some knowledge about invasive plants in forests. Specifically, 29% were very familiar with invasive plants and stated that they could identify all invasive plant species around where they live; 56% were familiar with invasive plants and stated that they could identify some species; and only 15% reported that they had never heard of invasive plants or had heard about them but did not know much about them. The survey results also show that respondents have noticed a large number of invasive plant species on their properties in Illinois. The table below contains all the species reported by respondents, as well as the percentage of respondents who reported each species. Notably, multiflora rose was the most noticed species on private woodlands in Illinois.

Invasive plant species noticed	% of survey respondents
Multiflora rose	74%
Asian bush honeysuckle	58%
Autumn olive	56%
Japanese honeysuckle	48%
Garlic mustard	45%
Other (written-in: purple loosestrife, kudzu, reed canary grass, etc.)	23%
Common buckthorn	21%
Ailanthus/tree of heaven	14%
Burning bush	14%
Callery pear or Bradford pear	8%
Japanese barberry	8%
Japanese stilt grass	7%
Winter creeper	7%
Periwinkle	5%
Glossy buckthorn	5%
Privet	4%
Paulownia	4%

When asked about how they would determine if a type of plant on their properties is invasive, 72% of respondents reported that they would consult a forestry or natural resource professional, and 63% reported that they would search for information on their own by for example, browsing the Internet or reading a publication about it. Further, 54% of respondents would assess if the plant seems to be crowding out other vegetation on their woodlands, and 55% would assess if the plant seems to be spreading on their woodlands (55%). A little over a quarter (27%) of respondents would consult others who also own woodlands.

Regardless of landowner awareness of invasive plant problems in general or on their properties, most respondents were concerned about invasive plants. In fact, 83% of respondents reported concern or great concern about invasive plants on their own woodlands, while 73% reported concern or great concern about invasive plants on their neighboring or nearby woodlands, regardless of whether the woodlands were privately or publicly owned.



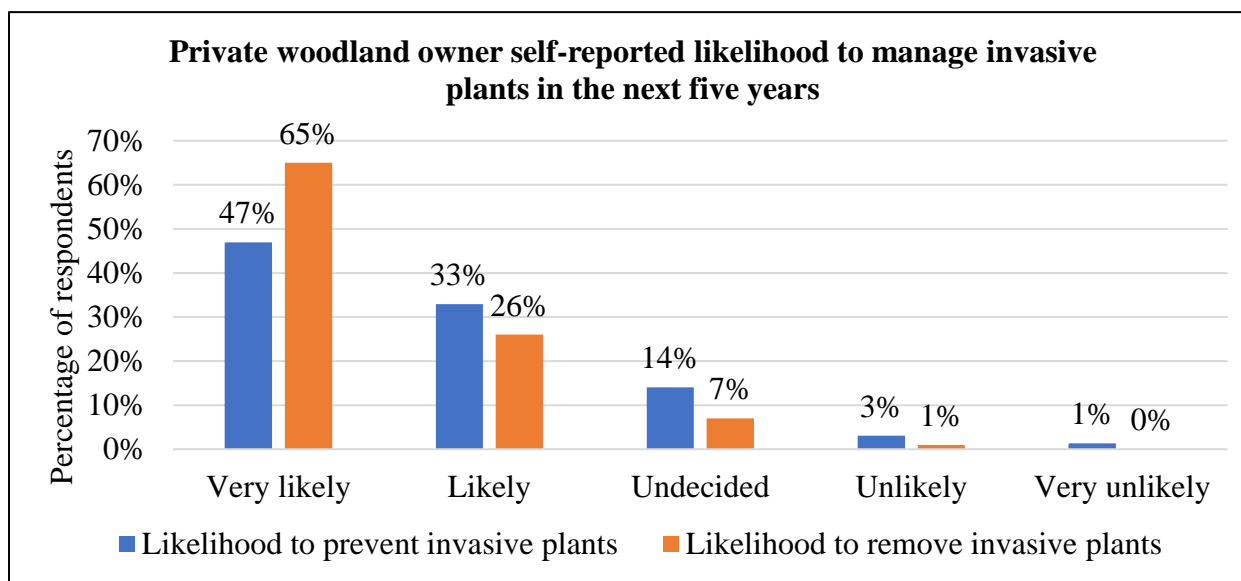
What are private woodland owners doing about invasive plants in Illinois?

Overall, respondents reported undertaking various invasive plant management activities on their properties. The following table lists the self-reported activities undertaken by respondents in the past five years. Over three quarters of our respondents reported pulling or cutting invasive plants on their woodlands, inspecting their woodlands for invasive plants, or applying herbicides to kill invasive plants. Another notable result is that, although most respondents previously reported being concerned about invasive plants on neighboring and nearby woodlands, less than a quarter had talked to their neighbors about invasive plants and only 4% had worked with their neighbors to remove invasive plants. In contrast, many more respondents (36% and 37%, respectively) had talked to their family and other non-neighboring woodland owners about invasive plants. These results point to an interesting question facing forestry professionals—what can be done to facilitate conversations among neighbors about invasive plants and to promote their interests and willingness to work together to address problems across property boundaries? It is also important to note that only 4% of respondents reported having done nothing about invasive plants.

Invasive plant management related action	% of survey respondents
I pulled or cut invasive plants on my wooded land.	89%
I inspected my wooded land for invasive plants.	79%
I applied herbicides to kill invasive plants on my wooded land.	76%
I searched for information about invasive plants on the Internet.	53%
I contacted a forestry or natural resource professional about invasive plants.	47%
I talked to other woodland owners who are not my neighbors about invasive plants.	37%
I talked to my family about invasive plants.	36%
I participated in workshops or information sessions about invasive plants.	35%
I sought technical assistance from a forestry/NR professional.	27%
I sought financial assistance from a state/federal program.	23%
I used controlled burn/prescribed fire to kill invasive plants on my wooded land.	23%
I participated in a county/state/federal program that assisting landowners to remove invasive plants.	21%
I talked to my neighboring woodland owners about invasive plants.	20%
I worked together with my neighbor to remove from both our wooded lands.	4%
None of the above	4%

What do private woodland owners plan to do about invasive plants in Illinois?

Looking into the next five years, a majority of the respondents reported a high likelihood to take actions to manage invasive plants on their woodlands. Specifically, 91% of our respondents were likely or very likely to remove invasive plants, while 81% were likely or very likely to take actions to prevent invasive plants from establishing on their properties. These results show a positive sign that most woodland owners are already managing invasive plants and have plan to continue their efforts at least in the near future.



While most respondents exhibited individual commitments, they mostly planned to work alone rather than communicating and coordinating with their neighbors and other woodland owners in their communities. Specifically, 46% planned to talk to their neighbors about invasive plants in the next five years, and 27% indicated that they would work with their neighbors to remove invasive plants. Although many respondents did not plan to actively engage with their neighbors, they did recognize the value of managing invasive plants in a coordinated manner. Specifically, 90% of respondents believed that “a ‘good’ woodland owner should control/remove invasive plants from their property to reduce potential spread onto other neighbors’ properties,” and 82% agreed or strongly agreed that effective control and removal of invasive plants require woodland owners to work together. In addition, 84% of respondents indicated that if their neighbors were managing invasive plants on their woodlands, they would feel the need to do the same.

In summary, most IFA members who responded to our survey were familiar with the concept of invasive plants and could identify some specific species. They were concerned about invasive plants on their properties and in their communities. Most respondents were already taking some actions to control invasive plants on their own and were planning to continue their efforts in the next five years. Most respondents also recognized the importance of coordinating with neighboring landowners when managing invasive plants; however, they may encounter or perceive various constraints. For example, only 15% of respondents believed that private woodland owners in general know how to self-organize to undertake coordinated activities with other landowners to control or remove invasive plants. These results present both challenges and opportunities for more effectively engaging private woodland owners to combat invasive plants in Illinois. It is important to keep in mind that invasive plants do not respect property boundaries, and an unmanaged property could serve as a seed source of invasive plants and affect the long-term effectiveness of control efforts taken by others.

Acknowledgements

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