# **2020 Illinois Forestry Association Board of Directors**

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#### **Our Mission...**

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

#### Our Goals...

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

https://ilforestry.org

# Message From the IFA President

#### Fellow IFA Members -



This maturing partnership between IFA and the IFDC sets the stage for two equally significant projects involving our State Champion Trees. Both of these projects are in the "idea" stage, but the IFA board is continuing to explore the following projects. The first project would be an effort to grow seedlings from selected Champion Trees for several years and offer the resulting young trees for sale on a pre-order basis. An accompanying project will be to identify 12 Champion Trees annually and develop a calendar for use by either the IFDC or the IDNR - or both. Each year 12 new Champions will be selected until all have been featured.

You can see the scope of these initiatives is literally state-wide. Therefore, we will need volunteers to help plan project details and then execute them efficiently on a pre-planned schedule. This is especially important with the seedling project – we need to be precise on this one for sure.

If you are interested in helping at any level with either of these major efforts, please let us know so we include you in every step of the planning process. These initiatives would not officially start until the IFDC approves the IFA proposals to be submitted in May 2021. Each approved project must be 100% complete by June 2022 in order for funding to be released to IFA.

I will be asking the Board of Directors to take leadership roles in these efforts and be the focal point for you to get involved. Contact information will follow. If you want to volunteer early, you can certainly do so by contacting me or Zach now.





Figure 1: State champion cherrybark oak

# amazonsmile

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### https://smile.amazon.com/ ch/27-0134781

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

Every little bit helps.
Thanks for your support!

# **IFA News and Updates**

by Zach DeVillez

This year, the IFA has multiple exciting projects to educate members and the general public about responsible forest management. One of which, occured on April 17th at the Arlington Wetlands Center.

The IFA, along with HeartLands Conservancy staff toured the work that IFA board member, Roger Smith conducted within the area. The forest around Arlington Wetlands had the same non-native invasive species challenges that most sites have around Illinois. The forest was covered by a dense wall of bush honeysuckle. The forestry mulcher effectively removed the bush honeysuckle and made control efforts easier to accomplish. The next step will be for HeartLands Conservancy staff and volunteers to treat resprouts with a systemic herbicide.

Roger Smith did a wonderful job demonstrating the various techniques and herbicide specifics needed to effectively control woody invasives. Attendees were able to learn these techniques so that they can replicate the techniques on the forest they own or professionally manage.

When you arrive at the Arlington Wetlands today, you see what foresters would call a beautiful thing; you see the interior of the forest. No longer will visitors' views be obstructed by dense infestations of bush honeysuckle. Visitors can see right through the forest to the beautiful wetland, nestled within the forest. With repeated monitoring and retreating, greater native plant diversity should reatake the forest.

#### Regional Field Day Schedule

Very soon, throughout May and June, the IFA will be holding four regional field events to show attendees different aspects of responsible forest management. These field tours will be held inperson, but will have a 50 person limit for attendees. Registration will be required, so when registration opens, make sure to reserve your spot!

The first field day will be held at Principia College in Elsah, Illinois on May 19th from 5:00 pm - 6:30 pm. This field tour will be led by Dr. John Lovseth, an Assistant Professor of Biology and Natural **Resources and Illinois Forestry** Association board member. John facilitates management to the forest within Principia College's campus. Attendees of this field tour will get to see a 65-acre prescribed burn, a site that was sprayed aerially to control bush honevsuckle infestations, and learn about the timber rattlesnake conservation efforts being made on Principia College's campus.

The second field day will be held at Touch of Nature Environmental Center at SIUC. This event is scheduled on Saturday May 22nd from 10:00 am - 11:30 pm. This field tour will be led by Dr. Charles Ruffner, a Forestry Professor at SIUC, Roger Smith, an arborist and IFA board member, as well as Chris Evans and Zach DeVillez with University of Illinois Extension Forestry. Attendees of this field tour will learn about prescribed burns and Forest Stand Improvement, invasive species control, and emerald ash borer.



The third field day will be held at the Howard Coleman and Funderburg Forest Preserves outside of Rockford on Saturday June 5th from 10:00 am - 12:00 pm. The tour will be led by Consulting Forester, Mike **Woolery and Forest Pest Outreach** Coordinator, Tricia Bethke. The Howard Coleman and Funderburg Forest Preserves are geographically adjacent to one another, but have been managed differently. Attendees will learn about silviculture, invasive species control, prescribed fire, harvesting, and forest pests that could threaten Illinois forests.

The fourth field day will be held at Allerton Park, near Monticello Illinois on June 14th from 5:00 pm - 7:00 pm. This tour of Allerton Park will be led by Ryan Pankau. More details will be available for this program soon!

These events are free and available to the public, however registeration is required!

For more details about these events and to register, go to:

https://www.ilforestry.org/ Events



# Habitat Fragmentation And The Need For More Well Managed Contiguous Forests

By Zach DeVillez

In today's world, there have never been more environmental concerns. It seems as if every day, a new study comes to light that paints a gloomy picture about the future of our global environment. While a great deal of divisiveness remains entrenched in the conversation about climate change and environmental health, one thing we know for certain is that natural resources are limited and changes to our natural ecosystems have far-reaching negative impacts to wildlife. Habitat loss and fragmentation is one such issue that negatively impacts wildlife today.

# What is Habitat Fragmentation?

Habitat fragmentation is the act of breaking down continuous habitat into smaller pieces. This happens at a large scale in different environments on the planet. Habitat loss and fragmentation is well documented within environments like the rainforest, Large, crucial habitats in the rainforest are often destroyed and fragmented to create space for agriculture. However, habitat loss and fragmentation occur globally. Studies have shown that as urbanization increases, habitat amount tends to decrese while fragmentation increases. To put this trend in simple terms, as the human population has risen, contiguous habitat has decreased.

#### Causes of Habitat Loss

#### **Deforestation:**

Deforestation is one such practice that heavily impacts wildlife. Deforestation is the act of removing a large area of trees, often taking the form of a clear-cut (cutting every tree within a forest). However, it is important to draw a distinction between deforestation and strategically cutting some trees for ecological benefit. Strategically removing specific species of trees from a forest is considered beneficial in some environments. It is a practice that helps foresters control succession of occuring species of trees and is often conducted to maintain or improve biodiversity. Deforestation however, can really hurt wildlife populations. Clearcutting can be a necessary practice in some cases, but when desirable trees are not allowed to rehabitate the area, this practice can really hurt wildlife.

#### **Draining of Wetlands:**

Wetland environments are vital to many different species of wildlife. Unfortunately, many of these diversity-rich habitats are drained to convert the soil for agricultural purposes. This practice has dessimated many aquatic systems, removing valuable habitat from the landscape.



Figure 1: Vital wetland habitat

#### **Invasive Species:**

The introduction and encroachment of non-native invasive species to natural communities is also a form of habitat loss. Invasive species have a tendancy to outcompete native plants and wildlife. While invasive plants and animals do not necesarily remove habitat from the landscape, they alter habitat, often making an ecosystem too homogeneous in nature by outcompeting and overpopulating.



Figure 2: Invasive Japanese Chaff Flower

Continued on the next page -

# A Historical Look at Illinois' Habitat Loss

Humans have obviously had a major impact on the landscape in Illinois, and everywhere else for that matter. However, you may be interested to know what Illinois looked like pre-European settlement. At one time, Illinois was covered by over 13 million acres of forest and around 8 million acres of wetland. Today we have just under 5 million acres of forest and around 1 million acres of wetland. While urban development and agriculture are necesarry to humans' societal needs, this is a staggering loss that has undoubtedly impacted wildlife.

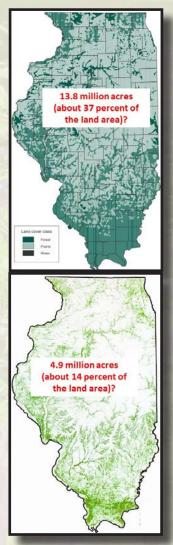


Figure 3 & 4: Comparison of forest cover pre-European settlement and present day

# Habitat Fragmentation Affect on Wildlife in Illinois

Habitat fragmentation can affect different wildlife in varying ways. Some wildlife respond better to fragmentation, being able to tolerate forest as well as edge habitats. These species are called habitat generalists and they are considered more adaptable. Habitat generalists include species such as white tailed deer, opossums, and raccoons. On the other hand, habitat specialists are heavily impacted by fragmentation. These species have very specific habitat needs. When habitat is taken away or degraded, these species have a hard time adapting to the massive ecological change. Wildlife in this category include animals like timber rattlesnakes, prairie chickens, and the Indiana bat.



© Jerry A. Payne, USDA Agricultural Research Service, Bugwood.org Figure 5: An Indiana bat, an endangered species in Illinois



# What Can Landowners Do?

The single most important thing a landowner can do is be a good steward of their land. Work closely with foresters and wildlife professionals to make sure you are optimizing your lands' ecological benefit to wildlife. Since much of Illinois' habitat is owned by private landowners in relatively small parcels, it is important for multiple neighboring landowners to get on board with habitat management. Control your invasives, add prescribed fire to your land, thin forests to optimize species composition, plant a pollinator garden, convert fallow fields to forests or prairie habitat. There are so many ways a landowner can help wildlife.

There have never been more environmental concerns than we have today, but we can all do our part to help conserve and create habitat for the critters big and small that we share this land with. As landowners, we have the power to ensure that our children and our children's children inherit an environment rich in wildlife diversity.



© Rob Routledge, Sault College, Bugwood.org Figure 5: A belted kingfisher

# Spring "Green" Up

By Cody Widner NWTF Forester

There are many things that define the arrival of spring whether it's a groundhog, warmer temperatures, melting snow, or one of my personal favorites, the thunderous gobble from an eastern wild turkey. Then of course there is also the green-up of woody and herbaceous plants that have been dormant through what seemed like a never-ending winter. However, not all of this luscious, green growth that's occurring in the woods is as attractive as it may seem since a lot of the green we're seeing early in the spring is coming from invasive plant species.

The presence of these invasive species may not seem like a problem, right? Afterall, they seem to provide cover and produce seeds that are consumed by wildlife. Well, unfortunately this is not the case. Although they do appear to provide cover and act as a food source for wildlife, we can get far better cover and much more palatable food sources from our native plant species.

The problem with invasive species is once they're introduced to an area they will rapidly spread and take over an area, out-competing and displacing native plants and disrupting the naturally balanced native plant communities. Not to mention, invasive species also don't have any predators that occur naturally in their new environment, whereas our native species have numerous predators such as the white-tailed deer.



Figure 1: Bush honeysuckle taking over understory in a hardwood forest. Photo by: John Burk

Almost all of these invasive species are exotic, and are usually native to Asia. These plants were introduced to the United States for their 'desirable' traits such as their fall colors, the capability to grow quickly, and their ability to produce a high amount of fruit/seeds. These traits make them attractive to homeowners who are looking to add plants to their landscaping.

Not only are these plants commonly planted in landscaping, but in the 1950s these plants were widely used by farmers, ranchers and even natural resource managers. Farmers and ranchers used to plant multi flora rose (Rosa multiflora) to serve as a living fence for livestock due to its ability to grow in thick clumps and its thorns that discourage anything from going through it. Even land managers historically used to plant invasive species such as bush honeysuckle (Lonicera spp.) and autumn olive (Elaeagnus umbellata) for their rapid seed production that was thought to be relished by wildlife.

Luckily, we've come to realize that some of these exotic plants can be invasive and can be very detrimental to our native ecosystems, especially our forested ecosystems. Many states have even made it illegal for nurseries to sell some species to the public. Individual invasive plant species are regulated in Illinois primarily through three regulations: the Illinois Exotic Weed Act and Illinois Injurious Species Rule (IDNR) and the Illinois Noxious Weed Law (IDOA). Collectively, these three rules restrict the sale and movement of SIXTY-TWO invasive plant species.



Figure 2: Kudzu; an invasive vine restricted under the Exotic Weed Act. Photo by: Chris Evans

Even though there are several regulations that prohibit the sale of invasive plant species, they are still present in our native ecosystems and are becoming a major problem in some areas, and will become a major problem in others if we don't start acting now to fight against the spread. For landowners, the fight against invasive species can seem like a daunting task. The gear that is

needed to treat invasive species often isn't the biggest concern for landowners. However, time is definitely the biggest hindrance when battling invasives.

Most landowners simply don't have the time to take on the battle themselves because they have a full-time job, hunting season, and/ or other projects or commitments that they already have. Luckily, there is help out there for concerned landowners who want to fight invasives.

Whether a landowner needs help with the know-how of fighting invasives, or if they want to get assistance to do the work by hiring a wildlife or forestry consultant that offer services such as invasive species control for a fee, then there are individuals who are employed by the state, government and nongovernmental organizations who can help them become aware of the options they have available to them.

For example, my position is designed to provide technical assistance to private forest landowners by writing management plans, helping them enroll in cost-share programs and informing them on any challenges they may be facing as a land manager. The best part about these services is that they are all FREE to landowners. The position is set up through an agreement between USDA's Natural Resources Conservation Service (NRCS) and the National Wild Turkey Federation (NWTF). I primarily work in the Driftless Region of Illinois which encompasses Jo Daviess, Carroll, Winnebago, and Stephenson counties. There are also two other NWTF foresters that provide similar services that work in different parts of Illinois - Stacy Lindemann (Illinois & Kaskaskia River Region) and Chase Seals (Shawnee Hills Region).

This is just one of the many examples of resources that private landowners have access to. Some other resources that landowners have are district foresters and district biologists employed by the Illinois Department of Natural Resources (IDNR). These individuals can also come out to provide technical assistance on management recommendations for private landowners.

To sum it up, if you are a landowner who's interested in fighting against invasive species, then there is help out there. Not only will you benefit the native plant communities in your forest, but you'll also improve the habitat for focal wildlife species – something we can all appreciate no matter what our main interests are.



© Rob Routledge, Sault College, Bugwood.org Figure 3: Eastern wild turkey

For more information about who to contact and where you can find help please follow the links listed below:

NWTF Foresters in Illinois <a href="https://www.nwtf.org/">https://www.nwtf.org/</a> about/state/illinois

# IDNR District Foresters in Illinois

https://www2.illinois. gov/dnr/conservation/ Forestry/Documents/ DistrictForesters.pdf

# Consulting Foresters in Illinois

https://www2.illinois. gov/dnr/conservation/ Forestry/Documents/ ConsultingForesters.pdf



# The Woodland Wildlife Cooperative Forming Alliances to Improve Wildlife Habitat

**By Brad Petersburg** 

# It's Time To Change My Forest Management Plan

I am one of the thousands that have moved to Jo Daviess County over the years because of the wooded hills and rural beauty of this region. About 15 years ago, I bought a heavily wooded parcel near Galena and semi-retired. The woods looked perfect to me. The need to manage this woodland did not even occur to me.

Yet, I quickly accepted the prior owner's Forest Management Plan as soon as I learned that doing so would keep my property taxes lower. It was not until I attended some basic forestry classes that I learned the economic value of timber stand improvement.



Figure 1: One of many magnificent white oaks in Jo Daviess County

Unfortunately, it took several more years before I began to realize that forest management impacts more than timber production. The sprawling, open-grown oak trees that I love are slowly dying off and, under current management, they will never be replaced. The canopy is simply too

dense. For the same reason, many once-common wildlife species are declining rapidly. Instead of a natural transition from dense forest... to open woodland... to native prairie, we now largely have dense forest and crop fields. The lack of habitat diversity has led to a lack of wildlife diversity. Something needs to change... starting with my Forest Management Plan.

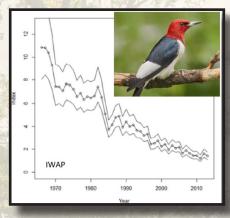


Figure 2: A chart showing the progressional decline of red-headed woodpeckers from the IL Wildlife Action Plan

# Reasons to Team Up With Neighbors

Rather than tackle this important challenge on my own, I decided to approach my neighbors this past winter to see if they would be interested in joining me in an informal Woodland Wildlife Cooperative. There are numerous reasons to work cooperatively with neighbors on improving native wildlife habitat, which in this region typically involves oak ecosystem restoration.

**Reason 1.)** Effectiveness - Many species of native wildlife require large, contiguous areas of habitat to maintain viable populations.

**Reason 2.)** Practicality - To be practical in rugged terrain, firebreaks and prescribed burns must cross property lines.

**Reason 3.)** Efficiency - A large, contiguous area of land can be managed much more efficiently than smaller, separate tracts. Procuring forest management services on a collaborative basis lowers cost for all members.

**Reason 4.)** Support - Cooperation among adjacent landowners makes it easier to attract support from various organizations and agencies that can provide important technical and financial assistance. In our case, initial supporters included NWTF, USFWS, NRCS, IDNR, & JDCF.

Reason 5.) Other Opportunities - As the Cooperative expands, so does the potential for cooperative marketing of timber or other products, which gives woodland owners increased leverage and the ability to reach alternative markets. Plus, value-added processing may become a viable option. This adds to the third leg of sustainability (profit or prosperity), which in the long run will make habitat restoration and maintenance less dependent on grants and government support.

## **Response From Neighbors**

The Cooperative exists to create opportunities, not obligations. Yet, initial skepticism is only natural. Adequately addressing landowner concerns, upfront, is obviously critical to moving forward with this type of initiative. A video call involving neighbors and representatives from each of the supporting orgs/agencies was held to review proposed plans and to answer questions.

#### The main concerns were...

- 1.) cost
- **2.)** "strings" attached to government program participation
- **3.)** risks related to the use of fire as a management tool
- **4.)** maintaining FDA compliance to retain a lower property tax rate

There are 14 landowners in the 1500acre, irregularly shaped "country block" where I live (bounded by three roads). This is Co-op "Block 1". So far, 12 landowners have agreed to participate, which includes over 90% of the land in Block 1. The only membership requirement is to cooperate with prescribed burns, which will be led by experienced professionals. Everything else is optional. Neighboring landowners across the road have also expressed interest. Since our supporting organizations and agencies each have staffing and financial limitations, we are jointly exploring grant opportunities to fund expansion into Blocks 2, 3, 4, and beyond.

# Creating a More Wildlife-Friendly FMP

Representatives from our supporting organizations and agencies (more specifically, a forester, a wildlife biologist, and a land restoration specialist) are currently working on a Master Plan for the Cooperative.

#### The Master plan will...

- 1.) provide a current assessment of Block 1 as a benchmark against which to measure progress.
- **2.)** inform members about ways to improve wildlife habitat and protect water quality without ignoring timber production.
- **3.)** identify the layout of firebreaks, which Cooperative members will need to review, amend if necessary, and approve. An initial draft of the Master Plan will likely be presented to the members in April.

Next, the professional forester referenced above will meet individually with each Cooperative member to discuss their individual property and specific goals, and to update that member's Forest Management Plan (FMP) accordingly. To streamline the process, we are creating an FMP template that includes the typical information and schedule of work, plus includes authorization for prescribed burns and other optional work. Our IDNR District Forester suggested that additional work on wildlife habitat be listed as optional. By making that work optional, landowners will feel more comfortable including all their goals for improving their woodland without creating any rigid obligations. Progress on optional work will be entirely at the discretion of each member and, since some of this work can be costly, will likely depend upon the availability of costshare programs. Lastly, our District Forester has agreed to reset the 10-year timeline on each member's FMP in Block 1. Though FMPs are not a legally binding obligation, the unified timeline supports a coordinated 10-year initiative by the members. Plus, updating all FMPs at the same time in another 10 years creates another opportunity to lower cost by engaging one firm for the entire Block.

## **Contiguity and Continuity**

The map below of tax parcels represents less than 2% of Jo Daviess County. As more people like me buy a wooded retreat, the ownership, and thus the management, of our oak-hickory woodlands becomes increasingly fragmented. Some parcels are managed for timber production, some are managed for wildlife habitat and, unfortunately, many are not managed at all. This fragmentation of management can lead to fragmentation of wildlife habitat, which is a major reason for the decline of native wildlife populations. Fortunately, once a wildlife-friendly FMP exists for a given parcel, the tendency is for future owners to adopt and continue the same plan. This continuity of management is especially important given the turnover in land ownership. In my neighborhood, over 50% of the land has changed hands in the last 15 years.

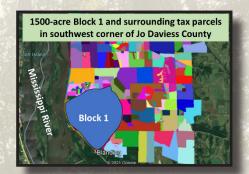


Figure 3: Land parcels in Joe Daviess County

My understanding of woodland management has changed dramatically over the years, and I still have a lot to learn. By forming alliances with my neighbors and with like-minded GOs and NGOs, we can all learn more together, work more efficiently, and have a much greater impact.

# State Forester Report

By Paul Deizman IDNR State Forester

At the one-year mark since COVID-19 stay at home order the DNR remains open and the Division of Forest Resources (Division) remains delivering full services and working out of trucks, homes and offices as necessary. The DNR headquarters and field offices remain closed to the public.

The state government processes are beginning to return to pre-COVID shape. What that final shape looks like is still to be determined. The Division has nine critical open positions to fill and we are told job postings and hiring is moving along. Historically speaking, hiring has always been a bit of a bottleneck so we are remaining patient with few other options and alternatives. We hope to offer the Fire Programs Manager position to an already interviewed candidate very soon, to be located at Benton, IL. Our #1 and #2 priorities remain a nursery technician/specialist at Mason Co. and a forester at Wayne Co.

IDNR Foresters at the districts are extremely busy with CRP, FDA and EQIP field projects, plans and activities in addition to any seasonal field work. This late winter and early spring many of our foresters additionally participate in deer culling for the CWD control program, conducting or leading Rx burning on state and private land and planting new forests on state and private land. Division leadership remains engaged with staff and partners in delivering the forest stewardship and FDA program, delivering a wide range of

urban and community forestry programs and fire programs, operating the tree, seed and plant nursery, demonstrating forestry on our state forests and dozens of other forestry related programs and services.

Your State Forester and the Division remain committed to promoting and delivering forestry, forest management, forest habitats and forest health across all Illinois forests. We treasure the ongoing and new forestry partnerships with landowners, organizations, governments, and others in conservation of our precious forest resources. To that end we hope to make headway this year on more of the important actions outlined in the Illinois Forest Action Plan most noteworthy of them being permanent forestry division funding.



"Gold is luxury.
Trees are
necessities. Man
can live and
thrive without
gold, but we
cannot survive
without trees."
- Paul Bamikole

# The Plants of Concern Program

By Chris Benda
Botanitst and Researcher

The biological heritage of Illinois is rich. Yet, many plant species are in peril. Species that were once common are now relegated to areas that are too steep, too wet, or otherwise unsuitable to farm, graze, or log. These areas comprise the natural areas of Illinois and contain many natural community types that range from prairie, to wetland, to forest, with many types in between.

In 1979, a pioneering project called the Illinois Natural Areas Inventory determined that just 0.07% of the land in the state was considered pristine natural habitat. As a result of this loss of habitat, plants that once occurred throughout the state are now rare. Take the Eastern Prairie Fringed Orchid for example. This beautiful orchid was once draped across the Illinois prairie, as far as one could see, in every direction. Now, most of the prairie is gone, converted to farmland, and so too are most of the Eastern Prairie Fringed Orchids.



© Christopher David Benda Figure 1: Eastern prairie fringe orchid (*Platanthera leucophaea*)

But while some plants are gone from the Illinois landscape, all is not lost. Some plant species persist, although they live a precarious existence. They need protection for long-term survival and one program that exists to monitor these rarities is called Plants of Concern.

Originating at the Chicago Botanic Garden, the program relies on volunteers to monitor rare plant populations and has been in place in northeast Illinois since 2001. One of the successes of the program relates to the white lady slipper orchid. Over time, data collected by volunteers showed that the species has recovered and is stable in appropriate habitat at protected sites, leading to its delisting. Recently, the program was expanded to include southernmost Illinois, and I was hired to coordinate the project through the Plant Biology department at Southern Illinois University Carbondale.



© Christopher David Benda Figure 2: White lady slipper orchid (*Cypripedium candidum*)



After completing online training and signing a confidentiality agreement, volunteers are tasked with monitoring a rare plant species at a specific location. Population size, reproduction, and threats such as invasive species are shared with land managers to develop the best conservation and management practices to support rare plants and their habitat. The goal is to track changes to the populations over time to ascertain their status as stable, threatened, or endangered in Illinois. This information guides the review process by the Illinois **Endangered Species Protection** Board (IESPB), which is mandated to occur every 5 years. Currently, there are 266 endangered plant species and 67 threatened plant species in Illinois and a complete list of all the threatened and endangered species in Illinois can be found at the IESPB website, <a href="https://www2.illinois.">https://www2.illinois.</a> gov/dnr/ESPB/Documents/ET%20 List%20Review%20and%20Revision/ Illinois%20Endangered%20and%20 Threatened%20Species.pdf.

With threats like invasive species and anomalous weather events due to climate change, plants need our help now more than ever. We owe it to all those who came before us and to all those who will follow, to ensure that the biological heritage of the great state of Illinois persists, and hopefully thrives. To become involved with the Plants of Concern program, please visit the website at plantsofconcern. org.

# Tree Planting

By Ryan Pankau University of Illinois Extension Horticulture Educator

#### **Overview**

In nature, there is a myriad of factors that can contribute to the success or failure of a tree planting operation. Many of these aspects, such as weather, are entirely out of our control and we have to just hope for the best. However, the type of planting stock and the installation method we choose are both entirely under our control. In fact, it is imperative we plan accordingly to be sure that viable plant material makes it to the field, gets installed correctly and proper follow-up care is provided as necessary until trees become established.

In this article, I will review common planting methods and highlight the strengths and weaknesses of each method to help landowners choose the best method for their tree planting operation.

# **Direct Seeding**

We all know that diversity is an incredibly important aspect of forest health. The primary advantage of direct seeding over other types of tree planting is the ability to include a wide variety of species, since seeds are widely available for collection or purchase. It is also one of the cheapest methods of tree planting, but requires the most site preparation and follow-up care to ensure proper establishment.

While other forms of plant material may be limited by suppliers, seed collection has far fewer barriers, especially if you are willing to travel around the local area to collect your own. If you plan to collect seeds, be sure you understand the proper time

for collection of each species' fruits. Also, be sure you understand storage requirements for any collected or purchased seed. Be aware that some seed crops are cyclical and can vary from year to year, which may create a challenge finding enough seed in a particular year. Consider supplementing your seed collection by purchasing harder to find seeds.

Direct seeding is typically done in the fall and works best in locations with good equipment access. It is extremely helpful to use tillage equipment for seedbed preparation, making this planting method ideal for reforestation of cropland or other planting locations that are relatively flat and easily accessible. In hilly or sloping locations, tillage can be problematic due to erosion concerns.

Since you are essentially "starting from scratch" in this planting method, weed control and follow-up monitoring of tree survival are incredibly important. In addition, management of wildlife is exceedingly important as seed and seedling predictors are likely the biggest contributor to planting failure. Prior to seed collection or purchase, be sure you have a good plan in place to provide weed and wildlife control for at least the first 3 years of the planting.

For more specific information on direct seeding, please refer to the Illinois Direct Seeding Handbook at: <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/il/technical/landuse/forestry/nrcs141p2">https://www.nrcs.usda.gov/wps/portal/nrcs/il/technical/landuse/forestry/nrcs141p2</a> 030634/.



© Brian Lockhart, USDA Forest Service, Bugwood.org Figure 1: Direct seeding of acorns

#### **Bare-Root Seedlings**

Bare-root seedlings are perhaps the most popular and versatile planting method in Illinois. From machine planting and site preparation with heavy equipment, to the simplest of hand-planting operations, bare-root seedlings offer a wide range of options to fit most any planting site.

There is typically a variety of species available for purchase each year, although supplies do vary year to year. Some flexibility must be built into all planting designs but there are always enough species available to mix and match a diverse selection that is well suited to the site.

Bare-root trees are lifted from nursery beds during dormancy each fall or winter and are stored in refrigeration until springtime. Therefore, this planting method is only possible in late winter or spring due to the timing and availability of plant materials.



Seedlings can be planted anytime in late winter or spring when soil is not frozen, with the earliest planting date being best to ensure planting success. Depending on the planting site and access, saturated spring soils can be a challenge, especially in the early season. If possible, plan site preparation activities for the previous fall to ensure your site is ready to plant when spring weather is favorable. Plan to complete all planting operations before early or mid-May to capitalize on spring rainfall before the summer heat.

Storage of dormant trees prior to planting is important to ensure viability of the plant material. Keep tree seedlings in cool location (<50°F) that is protected from sun and wind. If storing seedlings longer than a week, consider seeking refrigerated storage space. When planting in the field, plan to protect seedlings from sun and wind until you are actually putting them in the ground. Tree planting bags are available from a number of suppliers and offer a great option for both saving your back and protecting your trees.



© Thomas D. 'Tom' Landis, USDA Forest Service, Bugwood.org Figure 2: A bareroot seedling

### **Containerized Trees**

Containerized trees are often available in 3 or 5 gallon pots and represent the largest sized plant material that is practical to install at field scale. In recent years, more and more species have become available as containerized stock, making this planting option particularly appealing. However, containerized plants require much more care than other forms of plant material, cost significantly more and require additional planning for transport. In essence, there is more risk with larger, more sensitive and expensive plant material. On the positive side, planting can be done during a larger window of fall or spring assuming natural rainfall is adequate.

It is especially important to ensure adequate care can be provided for container plants prior to installation. The nursery setting these plants came from certainly provided ample water and light for each species' unique requirements. Ensure that you have a secure storage location with accessible water as these plants will need regular moisture if natural rainfall is not adequate.

Container plants also require special concern when transporting. Always handle this plant material by the pot, do not pick up trees by the stem. It is critical that the trunk be protected from damage during travel to the field and within the field for planting. Keep plants in the pots until the moment they are planted, since exposing roots to sunlight and wind can dramatically reduce plant vigor. These requirements can create challenges in plant transportation, so it is critical to plan ahead and ensure that you have sufficient means to safely deliver trees to their planting locations.

As an additional concern, container plants are typically installed in the field at much lower stocking,

meaning there are fewer plants per acre installed than with other methods. This low stocking creates an ideal opportunity for invasive species intrusion or an overabundance of natural regeneration that can outcompete planted trees and lower diversity. There is just more space that must be managed until canopy closure limits light, so planning vegetation control is important from day one.

Most of us assume that larger trees will make a forest sooner, but I have seen good evidence that well-established bare-root seedlings can nearly equal the growth of container plants over time in some settings. Simply put, larger plants are in more stress as we move them around, so these plants can take longer to become established at the site, whereas smaller planting stock can overcome transplant stress sooner and take off in the field.

Containerized trees are best suited to smaller planting sites with good access so a UTV or trunk can haul around these larger plants. They can also be used to boost stocking in existing plantings that may have lost some trees or work wonderfully for interplanting into forest openings. I have seen some very effective post-harvest plantings that creatively use slash to "hide" container trees from deer browse and other impacts. So, very targeted and smaller plantings are the best use of this type of plant material.



© Forest and Kim Starr, Starr Environmental, Bugwood.org Figure 3: Containerized Trees

# History of Conservation in Illinois

Installment #35 by Dave Gillespie, IFA Secretary Photos by Chris Evans

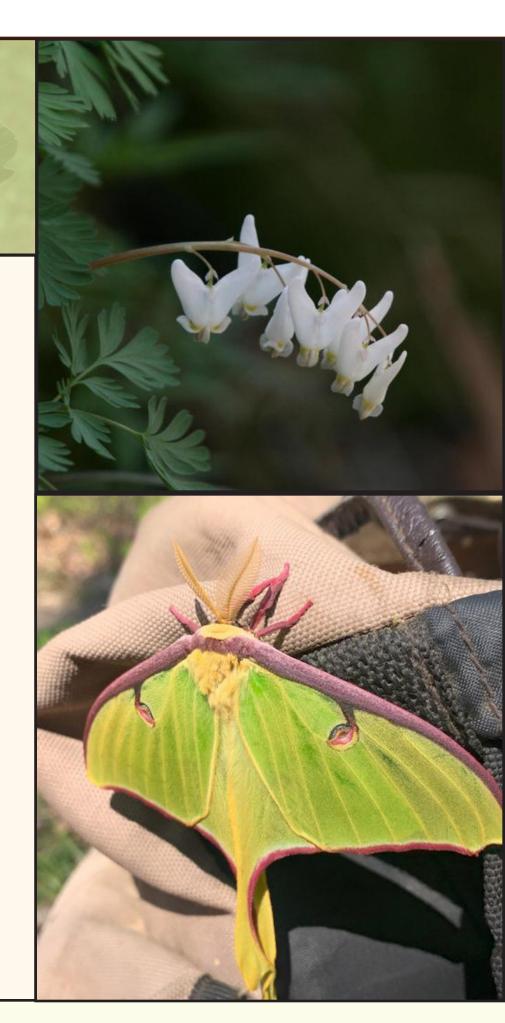
This account of the history of conservation in Illinois was written by Joseph P. Schavilje in 1941. This installment begins where installment # 34 ended.

In 1910, two young men from the Yale Forest School, Hall and Ingall, made report on the Woodlands of the State. This report, "Forest Conditions In Illinois" was published in 1911 by the State Natural History Survey in cooperation with the U. S. Forest Service as the first forestry bulletin. This report assembled the forestry information along the basis of watersheds and its conclusion outlined a forest policy for the State. (Miller, 1927)

Little was accomplished in forestry for Illinois after Hall and Inhall's report until 1919, when the Board of Natural Resources of the Natural History Survey, came into existence. The adviser in forestry was Dr. John M. Coulter of the University of Chicago, representing Botany and Forestry. This Board of the Natural Resources was able to secure funds for the salary and expenses of one forester. (Miller, 1927) Mr. H. B. Miller was appointed as forester for the Survey in July, 1919.

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





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As I write this, it is still the middle of spring, the merry, merry months of May as someone once put it. It is also the very cool, wet month of May around here in Central Illinois. However, it appears that my trees do not know it. They have budded, bloomed and sent thousands of seeds on my roof and into the gutters in spite of my having leaf guards all around the house. In addition, the winds has done an excellent job of pruning trees around here. Fortunately, I do not have many large limbs down, but the pines have done a very good job of losing branches and even small clusters of needles throughout the back yard. So far, this Spring I have sent 10 bags of three branches to the recycle and another four large garbage cans full of limbs and shrub trimmings to the same. I am talking about just a handful of trees here folks. I can just imagine what it would be like if I lived on one or more acres!

At the same time, squirrels and chipmunks have been all over the place, locating acorns that they buried last fall and early winter. I actually get a kick out of watching them try to locate just where their treasure was buried in the first place. However, I do not think much of their using the post that borders the deck to chew on so their little teeth don't get too long. A part of being an elder person is that I can yell and chase the critters, and no one ever calls me down for it. So much for suburban living. Life is good!

Earlier this year, my Cousin Bryan spent a few days putting paint around the trees on our Union County farm. Frankly, I don't know if that will keep trespassers out, but I do know that outsiders getting onto your property can be a nuisance to say the least. In past years, we have posted "NO TRESPASSING" signs, but these seemed to disappear in just a

short period of time. I certainly do not want anyone on the property that should not be there, not only for the liability, but because a trespasser could damage crops that our tenant has planted. As I recall, IFA pushed for the purple paint law several years ago, and I am grateful for it.



Chicago - 338 miles Peoria - 222 miles Effingham - 130 miles Belleville - 64 miles







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Name	# of Signs x \$12 (Member Price)
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City/State/Zip Code	Shipping & Handling
E-Mail Address	TOTAL

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

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

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

Stan Sipp

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

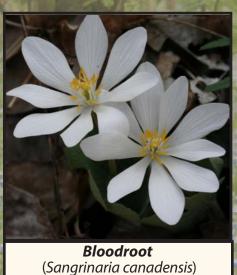
Signs are shipped via U.S. Postal Service

Invoice will be included with signs

Questions? Contact Stan by email at sksipp@illinois.edu

# Spring Wildflower Identification

**Photos by Chris Evans** 



(Sangrinaria canadensis)



**Shooting Star** (Dodecatheon meadia)



False Rue Anemone (Enemion biternatum)



Goldenseal (Hydrastis canadensis)



Jack-in-the-Pulpit (Arisaema triphyllum)



**Wild Hyacinth** (Camassia Scilloides)



(Asarum canadense)



(Viola sororia)



(Dicentra canadensis)

