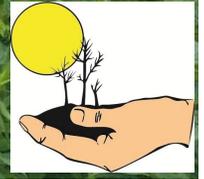


North Central Forest Landowners Association, Inc.

September 2025

McKean, Potter, Elk, and Cameron Counties, Pennsylvania



OLD FIELD MANAGEMENT (PART 2)

Len Groshek

Part one of this article (May 2025) described old reverting fields as a type of early successional habitat and briefly covered why it is valuable for wildlife. If a lot of time has passed since field abandonment, and your old field has grown more to forest than field, you'll have to decide if managing the site for timber production instead of early successional habitat is the best option. Having a good understanding of your goals and objectives and consulting a forester will help you make this decision. If the trees are desirable timber species with decent form and quality, managing for timber production might make the most sense, but widely spaced old field trees growing in wide-open conditions usually grow into low-quality timber. This type of stand might never grow to become valuable timber, but it does offer the opportunity to provide two different types of early successional habitat, either by bringing it back to open old field conditions or by cutting and creating a new young forest. Managing as young forest habitat is especially a good plan if the stand contains aspen. Aspen management was covered in the January, 2023 newsletter (old newsletters are available on the NCFLA website), and acre for acre, it is tough to beat aspen management as wildlife habitat. Cutting all of the trees can actually serve as both the best option for wildlife habitat and timber production for that particular stand. The cut stand will provide valuable early successional habitat for the first 20 years or so, and the dense growing conditions should produce nice straight stems that, if desirable species, could become valuable logs in the future. This is a good example of how closely related good habitat management and good timber management could be.



No matter how wooded an abandoned field is, it could be brought back to old field habitat by cutting the trees and treating the tree stumps with herbicide. Once the soil is exposed to sunlight, the forbs and grasses that once dominated the site should quickly return. The flush of herbaceous growth from the existing seedbank might surprise you, and planting seed may not be necessary, which is a good thing since stumps and tree roots make working the soil with equipment difficult.



The remainder of this article will cover managing old fields that haven't yet developed into a fully wooded stand with the goal of keeping old field habitat on your property. We'll look at how to maintain an old field in an early-successional stage, and how to improve it for wildlife.



Regardless of your goals, before you manage any stand, you should do an inventory to learn what's there. Take a look at the old field in the photo to the left. This McKean County field has not been touched since it was mowed with a brush hog fifteen years prior to the photograph. Trees are mostly red maple and white ash with a couple scattered white pines, and aspens are encroaching from the edges. Invasive shrubs include multiflora rose, autumn olive, non-native honeysuckles, and a few common buckthorn. Native shrubs include silky and gray dogwoods, hawthorn, arrowwood, and winterberry holly. Forbs are mostly goldenrod and asters, but mountain mint,

common milkweed, dogbane, and a few other wildflowers are also well established. The field had historically been used for hay and pasture, so orchard grass, timothy, and other cool-season grasses form a sod layer under the goldenrod. A small area of crown vetch and a couple patches of reed canary grass are also growing here.

At this stage it is still good old field habitat. Songbirds nest here or bring their fledglings from the surrounding forest to feed on the plentiful nutrient-packed insects. Hen turkey bring their poults here for the same reason. Fawns are often found in the heavy goldenrod cover, and woodcock use a more open part of this field as a spring singing ground. It may continue to be good early-successional habitat for another decade or so, but it is easier to manage and improve now before the trees get bigger and cast more shade on the herbaceous and shrub layers.

The first important step is to control invasives. It's better to do this before trees are cut and become obstacles to your work. Invasive shrubs could be treated with herbicide, either foliar or basal bark, and larger ones could be cut and stump-treated. In the above example, both crown vetch and reed canary grass should be controlled. Both have the potential of spreading rapidly and out-competing everything else. Mugwort and wild parsnip were treated in an adjacent field so should also be watched for. It's easier to treat invasives as soon as they show up instead of allowing them to completely overtake an area like the reed canary grass in the photo to the right.



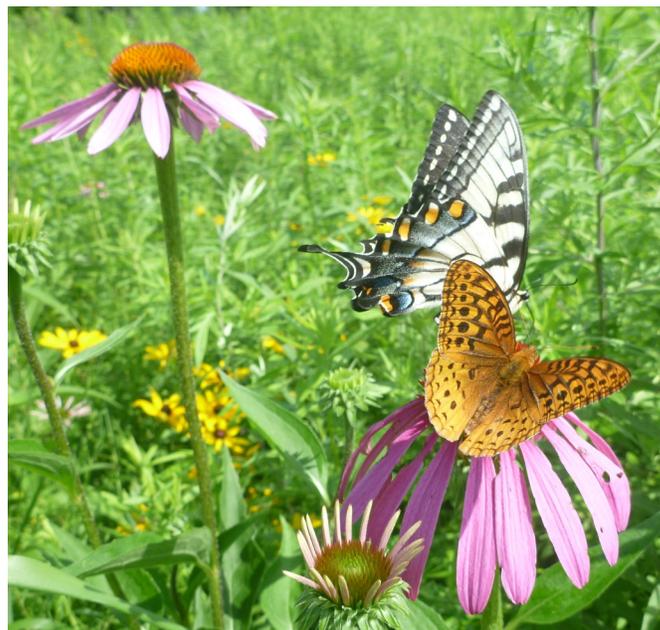
Monoculture of reed canary grass at Kettle Creek State Park

The next step would be to eliminate the trees. In the above example a few bushy white pines might be retained for wildlife cover, but everything else would be removed with herbicide. Larger trees could be cut and stump-treated or left standing and treated using basal bark or hack-and-squirt methods. A foliar treatment could be used on the small ones. If leaving stumps and planning to brush-hog in the future, either cut them very low or leave them high enough to see above the herbaceous layer while mowing.

Next, and a very important step, especially if planting wildflowers and/or native grasses, is to eliminate the sod layer of cool-season grasses. Non-natives such as timothy, orchardgrass, bluegrass, perennial ryegrass, smooth brome grass and/or tall fescue are certain to be present if the field was used for hay or pasture sometime in the past. It is difficult to remove cool-season grasses with only the plow or disk, and a thorough job might require an herbicide application which should be done in early spring or late fall when the cool-season grasses are actively growing.

Once the sod layer is removed, you might want to take a couple of seasons to evaluate the existing seed bank. Some seeds remain viable in the soil for decades, and you might be surprised by what comes up without having to buy and plant seeds. Many of these common native plants such as milkweed, pokeweed, ragweed, asters, and goldenrod make excellent wildlife habitat by providing forage for deer and rabbits and nectar, seed, and insects for grouse chicks, turkey poults, and songbirds.

There's no such thing as truly "permanent" early successional habitat. Retaining this type of habitat requires active management, primarily by setting back natural succession with some type of disturbance such as mowing, disking, plowing, prescribed fire, and/or herbicide. Each practice changes the quality of wildlife habitat by changing the plant species composition and structure of cover. The time of year and frequency of conducting each practice also influences the results. The simplest and probably most



common method is brush-hog mowing which could be conducted every several years. One problem with mowing is that it creates a thick layer of thatch, especially if the field has a lot of warm-season grasses. Dead vegetation limits new growth

and reduces openings at ground level which are important to wildlife. Avoid mowing between mid-April and the beginning of August to prevent destruction of nests, fawns, and nesting habitat. Disking and plowing expose bare soil and stimulate growth of new plants from the seedbank. These methods promote more annual forbs such as ragweed, docks, smartweeds, lambsquarter, and foxtail which produce a lot of seed for mourning doves and other songbirds. Prescribed fire is an excellent tool if you have access to enough personnel and equipment to conduct a burn safely. Unlike mowing, fire consumes thatch and increases nutrient availability. An early spring burn stimulates grasses which could out compete the forbs, while a late summer-fall burn tends to increase forbs. Herbicide can also be used to manipulate plant species composition. For example, a grass-specific herbicide could be used where forbs are present and preferred over grasses.

Craig Harper, Professor and Extension Wildlife Specialist at the University of Tennessee is a leading expert in old field management. His webpage (<https://naturalresources.tennessee.edu/craig-harper/>) provides valuable information for old field management and wildlife habitat. Pay particular attention to "Strategies for Managing Early Succession Habitat for Wildlife" on the scientific articles list and "A Quick Guide for Landowners Managing Old-fields for Wildlife" on the extension publications list.

Greater plant diversity (species and structure) generally provides better wildlife habitat, but some species require large areas of specific habitats. For example, grassland birds such as meadowlark, bobolink, and grasshopper and Henslow's sparrows will only be found in very large areas dominated by grasses. You won't find these birds in smaller patches of grass within an old field dominated by forbs and shrubs, but a 20+ acre grassland could be managed specifically for grassland birds. However, to attract the widest variety of birds and mammals, and specifically game animals such as rabbits and deer, a mosaic of different plants and cover types scattered throughout the area should be the goal.

Some of this occurs naturally because different conditions are naturally found throughout the field. For example, the photo to the right (August 2nd) shows plants more typical of wetter soils (swamp milkweed, blue vervain, and boneset) in the foreground, while the dryer soils in the background are dominated by ox-eye sunflower.

Plant and structural diversity could be increased by using different techniques to set back succession in different parts of the field at different times of the year and at different intervals throughout the years. Diversity could also be encouraged by planting seeds, but be aware that new growth of a novel plant is often a magnet for deer. Planting a larger area of at least a couple acres could help mitigate the damage by overwhelming the grazers.



While thoughts on non-native cool-season grasses is often focused on getting rid of them, that doesn't necessarily mean you don't want any. They produce palatable new growth when it's cool, long before the warm-season grasses, and provide grazing habitat for rabbits and deer. They make an excellent fire break and walking path if surrounding the edge of an old field and are easy to maintain with an occasional mowing. Also they may already be established if your old field was once hay or pasture and could be easily improved by adding clover.

Native warm-season grasses such as switchgrass, Indiangrass, big bluestem grow in bunches, green-up during warmer months and remain upright or bent over throughout the winter (photo right - December 6th). The spaces between the clumps leave room for forbs to grow and for rabbits to hide and travel.

Shrubs scattered through an old field provide an extra element of cover for small mammals and nesting birds. Most native shrubs display flowers and therefore insects long before most wildflowers bloom and then later provide a dependable crop of fruit or nuts. The common elderberry in the top left corner of the photo below is in



bloom while the surrounding forbs which include goldenrod, ox-eyed sunflower, common milkweed, cup plant, and Jerusalem artichoke are still green. Other native shrubs likely to become established on their own include gray and silky dogwood, staghorn sumac, hawthorn, arrowwood, nannyberry, winterberry holly, and hazelnut. That photo, taken mid-June, also illustrates the amount of cover and nutritious green forage available at the time of year when food plots are still not much more than dirt.

Annual food plots are popular with many deer-hunting landowners. They pack a lot of high-quality forage into a small area, especially when fertilizer and





other soil amendments are used, and they're an excellent tool for developing deer hunting and wildlife viewing opportunities. However, some of the perennials you find in old fields are just as nutritious as typical food plot species, and because they are already established, they are available earlier in spring when deer need them the most - when doe are growing fawns and producing milk, buck are growing antlers, and fawns need a place to hide. Unlike food plots, old field forbs don't have to be planted year after year, and most native plants do well without having to add fertilizer or other soil amendments.



As the seasons progress, different plants bloom as others fade out adding variety to the scenic landscape and a more enjoyable walk around your property. The show of color starts in June with the milkweeds (common and swamp), dogbane, white beardtongue, and black-eyed Susan. In July, you'll find flowers on the ox-eyed sunflower, purple coneflower, boneset, blue vervain, cup plant, mountain mint, and butterfly weed. These will be followed later in the month by wild bergamot, Joe-pye-weed, and gray-headed coneflower. Wingstem and brown-eyed Susan bloom in August, and September is dominated by goldenrods and asters. Maximilian sunflower and Jerusalem artichoke also bloom later in September.



By late fall and into the winter, wildflowers hold seeds that attract many types of songbirds. The photos on the next page show how much seed, very rich in protein, fat, and other nutrients, a single flower can produce. Multiply that by the thousands of seedheads in a field, and the habitat value of an old field is apparent. The field becomes one giant bird feeder. Even flowers that produce tiny seeds such as wild bergamot and brown-eyed Susan will be picked at by chickadees, juncos, goldfinches, and other songbirds.

Give any new seed mix at least three years before determining its success or failure. Some seeds remain dormant the first year or two, and some need to grow a year or two after germination before producing their first flowers.



No matter how many different plants you are able to get established in an old field, peak diversity won't last forever. Over time and without intervention, old fields become dominated by fewer and fewer species. Three things will inevitably contribute to this process: deer, invasive non-native plants, and certain vigorous native plants. Strategies for managing deer and invasive plants are common topics amongst landowners, foresters, and land managers, but let's take a closer look at aggressive native plants. Most old



wingstem



ox-eye sunflower



cup plant

fields in the NCFLA counties become dominated by several different species of goldenrod. Early goldenrod blooms in July, but most bloom during late summer and fall, and their yellow-color completely dominates the September landscape. Goldenrods are prolific and reliable bloomers that attract a lot of insects for wildlife, and its nectar produces an excellent fall honey crop for local beekeepers. Their sturdy stems hold up well to winter weather and provide good ground cover for rabbits and other wildlife, and deer typically avoid goldenrod, allowing it to grow in high-deer areas. All that being said, the problem with goldenrod is its tendency to reduce diversity in an old field. Because it's not preferred by deer and spreads aggressively, it tends to outcompete whatever you planted. So if you're converting an area already dominated by goldenrod to other wildflowers or native grasses, you might want to take extra care to thoroughly eliminate the goldenrod from that spot before planting seed. Also consider planting annuals such as corn, oats, wheat, buckwheat, sunflower, and/or crimson clover in that spot a season or two before planting the more expensive wildflower seed mix. This will better prepare the soil and eliminate goldenrod root pieces from the site and will prompt weed seed germination, allowing for a more effective herbicide treatment.



Diversity and wildlife habitat aside, another reason to keep an old field in an earlier state of succession is to enable an easier transition to a different land-use at some point in the future. Landowner goals and landowners themselves inevitably change over time. Will timber production be the primary goal for the owners seventy-five years from now when that stand is ready to harvest? Might their goals (or even your immediate future goals) shift towards wildlife habitat, pollinators, a fruit orchard, Christmas trees, or even reverting the land back to crops, pasture, or hay? Transitioning old field habitat over to another use with a brush hog is much less expensive and time-consuming than cutting trees and removing stumps with a bulldozer.

Maintaining and managing an old field is another good reason to get out and enjoy your property. Unlike managing a forest where it may take decades to see the results of your work, you can enjoy the fruits of your labor much sooner. It's fun to experiment. If plowing or disking does not produce the results you expected, try something else. If a certain seed mix fails, try a different mix or wait and see what happens naturally.

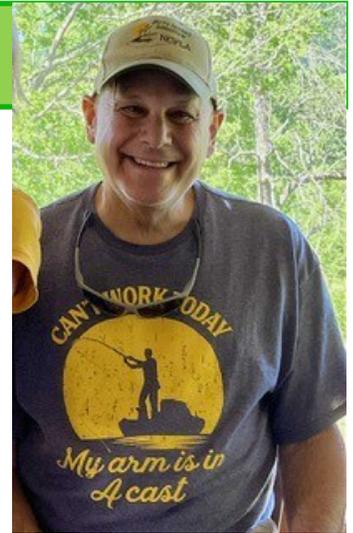
In Memory ~ Mark Miller

The NCFLA lost a very good friend last month. Mark Miller was a dedicated long-time member and served as NCFLA treasurer since 2020. His contributions to NCFLA were invaluable and his presence on the Board will be greatly missed. Mark's obituary is below:

Mark Murray Miller of Roulette, PA passed away at Buffalo General Medical Center following a stroke, on August 15, 2025, at the age of 74. He was born in Buffalo, NY, on May 12, 1951, and raised in Colden, NY. He was the second child born to the late Richard and Shirley Miller of Springville, NY. He is survived by his loving wife, Patricia, married for almost 52 years. PROUD and loving father to three daughters: Regina McCartney-Mackay(Jeremy), Nicole Jenette Miller(Steve), Mindy Elniski(Pete). He is also survived by 6 grandchildren: Thane, Erik, Carter, Katrina, Bryce, and Grant, who lovingly called him "EE". Also surviving are 5 siblings: Margo, Marie(Rich), Marla(Jim), Marlon, Martin(Patty). Mark graduated from Griffith Institute in Springville, NY in 1969. He earned a BS in Geology from SUNY Fredonia, NY in 1973. In 1973, he started working at the Red Wing Company in Fredonia, NY. In his 33 years there, he worked his way up from ketchup palletizer to Vice President of Procurement. The family moved from New York to Kansas, Colorado, then back to New York as the company changed ownership through the years. In 2006, after retiring from that business, he started his own broker/consultant business, which he continued to the present. In 2015, Mark and Pat moved to Roulette, PA, enamored by the beauty and peace of the mountains and the river. An avid outdoorsman, Mark loved fishing, hunting, and travel. On one of his many fishing expeditions to Alaska, he and his four buddies brought home 400 pounds of fish! He hunted in PA, NY, CO, TX. How perfect to spend his later years in God's Country where he could fish and hunt in the backyard of his Camp! Mark and Pat travelled to many national and international locations, a favorite being Australia. Two of his favorite expressions were: "Travel while you can" and "Get Er Done". And they did!

Mark was a quiet, thoughtful, patient, intelligent gentleman who loved his family and had a deep respect for nature. He will be missed by many. As per Mark's wishes, there will be no service or visitation. The family will honor Mark privately. We thank the excellent care of the Roulette emergency team who responded to our call for help. We appreciate, also, our caring neighbors and friends, and family.

"There are no goodbyes for us. Wherever you are, you will always be in my heart." Mahatma Gandhi



WHAT'S GOING ON HERE?

While flintlock hunting in Forest County, I came across this large rock leaning against a tree. How did it get there? What kind of tree is holding it up? (Find the answer at the end of the newsletter)



In the last three “Featured Shrub” articles we looked at a few of the more common viburnums. In this article we’ll look at a four more that are closely related and similar in appearance. Identifying plants gets confusing when names change, and it’s not unusual to find a plant called by different common names in different locations and in different books and websites. It’s also not unusual to find situations where botanists disagree on the classification of certain plants, so even classification by scientific name could get tricky. For “Featured Shrub” articles I always use The Plants of Pennsylvania by Rhoads and Block as a final authority for classification and for common and scientific names.

All four of the following shrubs have egg-shaped or oblong and pointy leaves that grow opposite of each other on the stem. All also have flat-topped clusters of creamy-white flowers and fruits that become very dark blue (almost black) when ripe. Each edible fruit (pome) contains a single flat stone. The fruit is not juicy but has a unique sweet flavor. All of these shrubs are native, provide good wildlife habitat, and are good options for landscaping a yard. Two are fairly common in the NCFLA area, and might be growing on your property.



Nannyberry flowers

Black-haw (*Viburnum prunifolium*). We won’t spend time on black-haw. It is common across southern Pennsylvania, but the USDA Plants Database website does not show it recorded in the NCFLA area.

Nannyberry (*Viburnum lentago*). Also called sheepberry or sweet viburnum. Nannyberry is fairly common, at least in McKean County, and can be found in moist woods and old fields. It is the largest shrub of the group, growing into the small tree category - up to 30 feet. Three things to look at for identification: It’s leaf margins are sharply toothed, It’s end buds are completely covered by scales, and it has large, almost half-inch, fruits. The wrinkled blue-black fruits persist on the stem into winter resembling raisins. The USDA Plants Database shows it growing statewide including the NCFLA area except for Cameron County.



End buds

Witherod (*Viburnum cassinoides*). Witherod is also called northern wild raisin. It is also fairly common, and the USDA Plants Database shows it growing in all four NCFLA counties. It grow’s in wetter areas such as the edges of swamps and bogs but can also be found in moist old fields and woods. It’s a true shrub and usually grows to only five or six feet (sometimes up to 13’). It’s leaves are not toothed or have only small rounded bumps on the margins, and it’s end buds are only partially covered by scales, It has smaller fruits (about 1/4”) that turn from green to pinkish to red to blue and then black, and you’ll sometimes find a mix of colors in the same cluster. If you look this one up, you might find it classified as a variety of Possum-haw (*Viburnum nudum* L. var. *cassinoides*) and not as a separate species.



Possum-haw (*Viburnum nudum*). Also called southern wild raisin, is very similar to witherod but has glossier leaves and twigs. It is not as common as nannyberry and witherod, and [The Plants of Pennsylvania](#) lists it as rare. The USDA Plants Database, which refers to it as (*Viburnum nudum* L. var. nudum), shows it to be “native” throughout Pennsylvania but includes no specific county data.



If interested in trying one of these as a landscaping shrub, nannyberry would probably be most suitable, as it grows well on drier sites. Its prolific flowers and berries and crimson/maroon fall foliage makes it a good addition to any yard. It also has persistent fruits which attracts songbirds. It could be attacked by Viburnum leaf beetle, but is not as susceptible as cranberry viburnum and arrowwood. It might also be affected by a fungal disease known as powdery mildew which is non-fatal but could damage leaves later in the fall and lead to premature leaf-drop.



Powdery mildew

Hoffman Woods Walk

Saturday, May 17, 2025 @9:00 am
Cameron County

- Jim Hillebrand, Vice President

A small group of members attended the subject woods walk on Saturday, May 17 near the village of Cameron. Mike Hoffman met us at his gate and we drove up to his camp, where he gave us some information on the history of the property. It had been in the Slyder family for almost a century prior to his purchase from the owners. The large property is almost entirely a second growth stand of red maple, oak, and a variety of other species. Various cuttings have occurred over the years. Mike had long believed that the property suffered from an overpopulation of deer. He wanted a way to document that opinion and convince his hunters. In the early fall of 2023, in an area covered by fern, Mike had a thinning, then a herbicide spraying, then erected an eight foot woven wire fence surrounding a eleven acre area. That is a considerable expense for a private landowner, and Mike has already had to do some maintenance caused by a few trees on the fence.

Mike took us back to that deer enclosure. After just 1½ growing seasons, the area



inside the fence has a good component of stump sprouts, briars, and seedlings of cherry, red maple and some red oak. We were impressed by the results in such a short time. It will be interesting to see the changes as the years go by. By the way, Mike limits his hunting group to his circle of family and friends, but he gets a good number of DMAP tags, and encourages those hunters to harvest antlerless deer.

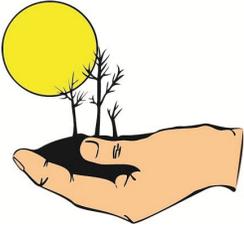
Annual NCFLA Picnic

About 30 NCFLA members and guests attended the annual Picnic and enjoyed a bird program following lunch. Sizerville State Park environmental education specialist Alyson Rotello organized the presentation and spoke about forestry and birds including how forest landowners’ work benefits many species of birds. After lunch, bird banders Dave and Fay Hauber provided a very enjoyable and informative bird banding demonstration in the park. David Hauber has been birding since 1948 and banding birds since 1988. David and his wife Fay demonstrated and explained the process and benefits of banding. David has banded over 35,000 birds including over 2,000 Saw-whet owls.



NCFLA Programs and Events

There are still two NCFLA events in 2025—the Walk in Penns Woods and our Annual Banquet. Watch your email for detailed flyers. Any member interested in hosting or coordinating an additional program or woods walk can contact an officer. New program ideas are welcome!



Sept. 3	NCFLA BOD Meeting	Smethport Extension Office
Oct. 5	2025 Walk in Penn's Woods	10 am at the PA Lumber Museum
Nov. 2	Annual Banquet	Port Allegany Vets Club
Dec. 16	Board of Directors Meeting	Elk County Conservation District

Educational Donation Program: The NCFLA offers educational donations for organizations in the NCFLA counties (Cameron, Elk, McKean, or Potter counties) who provide education about sustainable forestry or wildlife management. Organizations requesting a donation for a project should have other funds supporting the program, NCFLA funds should not be the sole source. Priority will be given to projects educating youth. Funds are limited and applications will be accepted and considered by the Board of Directors throughout the calendar year. Organizations interested in applying should request an application packet by emailing ncfla2@gmail.com

Thank you to Mark & Pat Miller and Susan Hayduk (donation in memory of Paul Hayduk) for their generous donations to the educational program fund.

NCFLA Bi-Annual Elections: Board election ballots are due to be returned to the Nominating Committee no later than Oct. 24. Your vote is important. Please take the time to vote and return in the envelope provided.

Annual Banquet: Please make plans to join us for the NCFLA Banquet on Sun. Nov. 2nd at the Port Allegany Vets Club on Route 155. Program speaker will be Kip Adams of the National Deer Association. Meal catering by Eddie's on Main. Watch your email for the banquet flyer and registration information.

The banquet also includes our annual membership meeting. We will have a proposal regarding membership fees up for a general membership vote during the meeting.

Membership Renewal Time: Watch your mail for the renewal letter and form for your 2026 membership dues. The NCFLA membership year runs from January to December each year. Your membership dues are vital to support mailing costs, non-profit insurance, and organization events.

2024-2025 NCFLA Board of Directors

Officers:

President: Len Groshek
Vice President: Jim Hillebrand
Secretary: Jody Groshek
Treasurer: Vacant

Board Members:

McKean County: John Stratton
Cameron County: Dave Lombardo
Potter County: Verda Knowlton
Elk County: Russ Braun

DCNR Service Foresters:

McKean, Potter: Issac Leach
Elk, Cameron: Toby Herzing

Penn State Extension:

Katie Brooks

Communication:

Website: Walt Petrick
Facebook: Jody Groshek
Newsletter: Len and Jody Groshek

Email: ncfla2@gmail.com

NCFLA address: P.O. Box 141, Port Allegany, PA 16743

Website: <https://ncfla2.wixsite.com/website>

Find us on Facebook: North Central PA Forest Landowners

Trade, business, or product names contained in this newsletter do not reflect an endorsement by NCFLA. Due diligence researching products or companies is the responsibility of the landowner. NCFLA is a 501c3 non-profit organization.

Meet Our New Service Forester

Submitted by Isaac Leach



My name is Isaac Leach and I am excited to introduce myself as the new DCNR Service Forester covering Susquehannock and Tioga Districts which includes Tioga, Potter, and McKean counties. I will be working out of the Wellsboro and Coudersport offices to provide technical assistance and education in the form of property visits, presentations, tours, and other forms of outreach. I graduated from Paul Smith's College, located in the Adirondacks of New York, with a bachelor's degree in Ecological Forest Management and a minor in Geographic Information Systems in 2019. I originally started with the Bureau of Forestry as an intern in 2018, but also worked for a sawmill and in the industrial forestry sector before graduating. Prior to my current station, I worked as a Forest Technician for the Pennsylvania Game Commission as-

sisting with habitat improvement projects for 5 years. My wife and I live on a farm near Wellsboro raising sheep, beef, and farm kids (our two young boys). I hope to assist you in reaching your management goals and furthering your knowledge of the forests here in Penn's Woods. Please reach out if you would like to walk your property with a new perspective or if you have any questions, concerns, or cool stories and pictures to share. E-mail at isleach@pa.gov or phone at 814-660-1072.

Answer to "WHAT'S GOING ON HERE?"

A good first guess would be a dozer or some other type of heavy equipment, but there are no equipment tracks or other land disturbance anywhere near this spot, so it is not likely the result of human activity.

Here's one possibility. The tree holding up the rock is black (AKA sweet) birch, and the double stemmed tree laying next to it is either red or white oak. Both are common on this ridgetop. Oak is fairly rot resistant, especially if not laying directly on the ground, and you can see the logs are fairly well rotted. Also, all of the soil has eroded from the up-turned roots, so it appears the oak has been on the ground for quite a while. The oak is a blowdown and was not a victim of oak root rot as is the case for other trees in the stand. It had a full, apparently healthy root structure when toppled, but this ridge-top tree was not able to withstand a particularly strong blast of wind from the southeast.

Imagine when the tree had just fallen. The healthy root system would have pulled up a lot of dirt along with the big rock. The wall of soil around the root structure held the rock in place along its edge.

Millions of tiny black birch seeds, which need exposed mineral soil to germinate, were sprinkled across this ridgetop later that year, but most failed to germinate and simply rotted. One tiny birch seed happened to land on the freshly exposed bare mineral soil that spilled in the space between the fallen oak's logs, the rock, and the perpendicular wall of roots and dirt between them. Over many years of wind and rain, as the wall of soil slowly eroded, the birch grew in that space. Eventually, the birch got big enough and was all that was left to hold up the rock.



Back view