



Kentucky

Woodlands



Volume 8 Issue 2

Magazine



FORESTRY 101: Painting Trees

Moving Logs: Small Scale Logging

Logging: Protect Yourself from Bad Actors

Kentucky Woodlands

Volume 8 Issue 2 Magazine
August 2013

*Promoting stewardship and sustainable management
of Kentucky's family private forests.*

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*Editors's Note: We are also pursuing the use of SFI paper produced on
SFI certified and American Tree Farm System certified land.*

From the Editors of the Kentucky Woodlands Magazine:

This issue has a particular slant – WOOD. But before we get into the one-half of the magazine that is devoted to wood, everyone, please remove the survey from the magazine, fill it out, and send it in. Secondly, look for information on the upcoming Woodland Owner Short Course (the Central Kentucky Woodland Short Course is at the WOOD EXPO, see below). Now back to wood. Our feature article provides woodland owners with options for safely removing logs and poles from the woods. It showcases the different equipment that is available for safely using four wheelers and farm tractors to skid timber from the woods. Some of this equipment is relatively cheap and can make cutting and hauling wood enjoyable.

Just as important, look for the four pages of information on the upcoming WOOD EXPO to be held for the first time in Lexington. While the WOOD EXPO was developed for loggers and forest industry, this year's EXPO will feature demonstrations and workshops specifically for woodland owners - don't miss it. The issue of repeat bad actors, (loggers that have not followed best management practice laws multiple times), is described in this issue. This two-page article was provided so that woodland owners understand the designation and know how to get information on this issue. Don't miss an update on the reorganization of the Kentucky Division of Forestry and our regular departments that include information from the Kentucky Woodlands Owners Association, State Tree Farm committee, a champion tree article, and our Woodland News to Use. Have a great rest of the summer and see you at the WOOD EXPO.


Jeff Stringer,
University of Kentucky
Department of Forestry
stringer@uky.edu


Diana Olszowy,
Kentucky Division of Forestry
diana.olszowy@ky.gov

About the Cover:

The front cover collage depicts the progression of trees to a wood product and is a fitting tribute to this issue of Kentucky Woodlands Magazine which has a special emphasis on wood. The top two images are courtesy of Jeff Stringer, UK Forestry and the bottom two images are courtesy of Tom Barnes, UK Forestry.

Photo courtesy: Christian Oldham



The red salamander, a common species found throughout most of Kentucky, is often found in woodlots, especially where streams and seeps are present. For more information on Kentucky salamanders see the article on page 8.

Managing Editors:

Jeff Stringer
Cooperative Extension Service
University of Kentucky
Department of Forestry

Diana Olszowy
Kentucky Division of Forestry

Associate Editor:
Billy Thomas
Cooperative Extension Service
University of Kentucky
Department of Forestry

**Assistant Editor,
Advertising & Graphic Designer:**
Reneé Williams
Cooperative Extension Service
University of Kentucky
Department of Forestry

Proofreading and Web Support:
University of Kentucky
Agricultural Communications Service

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Forestry Extension Office,
Department of Forestry,
University of Kentucky,
216 Thomas Poe Cooper Bldg.,
Lexington, KY 40546-0073
859.257.7597
E-mail: billy.thomas@uky.edu
www.ukforestry.org

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Forestry Extension Office
Department of Forestry
216 Thomas Poe Cooper Bldg.
Lexington, KY 40546-0073
859.257.7597
www.ukforestry.org



Kentucky
Division of Forestry
627 Comanche Trail
Frankfort, KY 40601
502.564.4496
<http://forestry.ky.gov>

Moving Logs - Small Scale Logging for Woodland Owners



by Jeff Stringer

While timber production is only one of the reasons that families own woodlands, many owners like the idea of being able to cut and use some of their own timber. Regardless of whether you are gathering firewood for your own use or making lumber and wood products for a profit, removing logs or poles from the woods can be a challenge. This is especially true because most woodland owners do not have commercial logging equipment specifically designed to safely and efficiently drag and haul logs from the woods. Instead most woodland owners will use equipment that is readily available such as farm tractors or four wheelers, either ATVs (all terrain vehicles) or UTVs (utility task vehicles or side by sides) to drag or haul logs. Unfortunately, these vehicles are not designed to undertake this type of work. Commercial logging equipment is designed to drag (skidd) timber safely. It is designed to work in rough terrain and is difficult to tip over. Further, commercial logging equipment such as timber skidders or dozers are designed to and can safely drag very heavy loads behind them. ATVs, side by sides, and farm tractors are not. In many instances their designs can make them inherently dangerous when dragging timber from the woods. A number of steps can be taken to ensure your safety when dragging logs and poles from the woods with tractors or four wheelers, and a number of equipment manufacturers have designed attachments to allow for the safe removal of timber with these types of equipment.

Turn Log Dragging into Log Skidding

A large number of attachments have been designed to help woodland owners safely haul logs (including sawlogs and smaller diameter pole-sized material) out of the woods. While there are many different designs, they all have one thing in common with commercial logging equipment: They are designed to lift the front end of the logs off the ground. This issue is extremely important. If the front end of logs remain on the ground they can easily hang on rocks, stumps, and uneven ground as they are dragged. This often happens unexpectedly and farm tractors and four wheelers react by raising the front end. When these types of equipment are put under this stress they can quickly become unstable. Flipping over backward or to the side can easily occur, leading to injury or worse. Raising the front end of the logs or lifting them entirely off the ground, which some attachments are designed to do, significantly reduces these incidents. Lifting the front end of the logs also decreases the friction of the log along the ground and thus increases the weight that can be moved. In essence these attachments turn farm tractors and four wheelers from log draggers into log skidders. All of these factors improve both the safety and efficiency of moving logs with tractors and four wheelers.

Attachments for Four Wheelers

ATVs and side by sides are different machines, but there are attachments that can be used by both to safely skid logs from the woods. A great deal of ingenuity has gone into the development of these attachments, and all have their pros and cons. However, using one or more of them will make removing logs safer, more efficient, and enjoyable. The following describes some basic types or categories of these attachments designed for use with four wheelers.

Skidding Plates - One easy way to get the front end of logs off the ground is to place a steel plate underneath the front end. A number of manufacturers and distributors sell log skidding plates; Figure 1 shows an example. These plates



Figure 1. A skidding plate is the least expensive attachment for safely skidding with a four wheeler.

are simple and relatively cheap. The front end of the log rides on a plate that is turned up on the front end allowing the plate to move over rocks and other impediments. The steel running across the ground results in less friction than dragging the log with the front end constantly pushing dirt. One downside to the plate is that the log must be rolled up onto the device and secured before pulling. Using peavey's or cant hooks (Figure 2) can help to roll the logs onto the skidding plate. They are designed to grab or bite onto a log, and the leverage developed from the long handle makes



Figure 2. Cant hooks and Peaveys are valuable tools to help move logs by hand.

turning and rolling logs relatively easy. These useful devices are widely sold by forestry suppliers. Woodland owners will find many uses for them, such as stabilizing and lifting logs off the ground for cutting into firewood or rolling logs off a road.

Arches - Arches are taken from a design that was historically used by loggers who were relying upon animals to skid logs and poles. Later these arches were modified to be pulled by bulldozers or tractors. A similar design is now configured to be pulled by four wheelers (Figure 3). A number of arch

designs, all of which have pros and cons, lift and suspend logs under the arch between a set of wheels. Some designs lift the front end of the log, and others can totally sus-



Figure 3. Arches are arguably the safest and most efficient way to move larger logs with four wheelers.

suspend a short log. The wheels are nearly frictionless compared to dragging the front end of the log across the ground, and arches can provide significant lift as well, allowing obstructions to be cleared. Some arches are designed to be pulled by hand (Figure 4), and some can be both pulled by hand and with a four wheeler. Arches also differ in their capacity, how



Figure 4. Some arches can be pulled by hand and by four wheelers.

The other method is to use log chains or cable chokers. Figure 6 shows one method of lifting logs that is used by several manufacturers. Notice the bar that extends from the top of the arch sloping downward to the tongue

at the front of the arch. A ring or pulley rides along this bar. Logs are attached to the ring or pulley using a chain or cable "choker." The choker is pulled tight around the log, and the arch backed up or set over the log. The choker is attached to



Figure 5. Some arches use tongs to grab logs while others use cables and chains.

the ring or pulley as it rests at the bottom of the bar (Figure 6a). As the four wheeler moves forward, the resistance of the log allows the ring or pulley to move up the bar, eventually being pulled all the way to the top and lifting the log or logs off the ground (Figure 6b). With these arches the four wheeler power lifts the front end of the logs off the ground. When you are ready to stop,



reverse the four wheeler and the ring/pulley will slide to the bottom of the rod and the front end of the log will be on the ground. These types of arches will not allow short logs to be fully suspended. Another method that manufacturers use to lift the logs is by using a hand crank pulley. Figures 7 and 3 on the previous page show examples of an arch that uses a hand crank pulley. These arches can be used to fully suspend short logs, which can be advantageous. This is especially true for those milling their own lumber. Fully suspending logs reduces the amount of dirt and debris in the bark, which can prolong the life of chainsaw chains and saw blades.

6a.

Figure 6. An example of an arch that attaches to the logs while they are on the ground and are lifted off the ground with forward movement of the four wheeler.



6b.

reverse the four wheeler and the ring/pulley will slide to the bottom of the rod and the front end of the log will be on the ground. These types of arches will not allow short logs to be fully suspended. Another method that manufacturers use to lift the logs is by using a hand crank pulley. Figures 7 and 3 on the previous page show examples of an arch that uses a hand crank pulley. These arches can be used to fully suspend short logs, which can be advantageous. This is especially true for those milling their own lumber. Fully suspending logs reduces the amount of dirt and debris in the bark, which can prolong the life of chainsaw chains and saw blades.



Figure 7. Arch with a hand operated winch with cable that attaches to chains wrapped around logs.

Trailers - Trailers can be used, typically for smaller diameter and relatively short pieces (Figure 8). These trailers can be loaded with an attached hoist. The hoist can be either manually or hydraulic powered. The hydraulic hoists designed for use with four wheelers have a gas/diesel engine that powers the hoist. Trailers are designed for a wide range of capacities and can be pulled by four wheelers with larger trailers designed to be pulled by tractors or trucks. All of these trailers are designed to haul relatively short logs or poles typically less than 16 feet in length. Also the lifting capacity



Figure 8. Trailers are an efficient means of moving smaller logs, poles and firewood.

of the hoists can be problematic for large heavy logs. However, they can be very efficient when hauling short pieces on relatively flat ground. Steeply sloping ground and heavy logs can present challenges and potentially safety issues for trailers.

Using Tractors

Farm tractors are certainly an option for hauling logs from the woods. However, as with four wheelers, most farm tractors are not designed to work in rugged terrain, nor are they designed to pull heavy loads under conditions where the load can hang. These scenarios are common to woods work, but a number of different attachments can be used to assist woodland owners in using farm tractors. Log skidding plates and arches that can be used with four wheelers (described on page 2) can also be used with tractors. Along with the attachments that are designed for four wheelers are a host of attachments designed specifically for tractors. Some are designed to use the lifting capacity of a three-point hitch as well as the engine of the tractor to provide power either hydraulically or from the PTO (power take off).

Skidding Winches - One of the most common tractor attachments is a skidding winch (Figure 9). Several manufacturers offer skidding winch-



Photo courtesy: Chris Schnepf, University of Idaho, Bugwood.org

Figure 9. Log skidding winches are designed to work with small farm tractors and allow logs to be skidded to the tractor from over 100 feet away.

es, and they all share the same basic functions. All skidding winches attach to a three-point-hitch. They come in different sizes to match differing tractor sizes. As would be expected, models designed for larger tractors have more capacity than those designed for small tractors. To work the skidding winch the attachment is lowered to the ground with the three-point-hitch and a steel cable pulled out to the waiting log or logs. Typically log chains/cable chokers are used to attach the logs to the cable. The operator then engages the winch and the logs are pulled up against the attachment (Figure 10a). All of this is done with the attachment firmly on the ground and the operator standing to the side, making this a very safe operation. Once the logs are winched



10 a.
Figure 10. Skidding winches provide a safe means of using farm tractors. The logs are first pulled to the winch using cables (a) and then lifted off the ground and skidded from the woods (b).



10b.



Figure 11. Arches attached to winch cables can be used to lift the front end of logs when the winch cable is drawn tight facilitating movement of the log back to the winch.



Figure 12. Grapples are also made for tractors but require the tractor to backup to each log.

up to the attachment they are secured to the skidding winch. The operator can then climb onto the tractor and raise the attachment, raising the front end of the logs, which can then be safely skidded (Figure 10b). These winches have the advantage of using the cable to reach difficult locations that are unsafe for the tractor, a significant advantage for many woodland owners. The skidding winch positioned on the three-point hitch eliminates tip over concerns while winching the log to the tractor and significantly reduces tip over problems while driving the tractor with the load behind. Usually the logs are simply pulled across the ground to the attachment, but arches and log skidding plates attached to the logs can be used to facilitate the process. Figure 11 shows an arch that is attached to a log with tongs and the cable from the winch is attached to the tongue of the arch. As the cable is drawn into the winch it pulls the front end of the arch down and lifts the log off the ground, allowing a smoother and safer pull back to the tractor.

Grapple - Another device that can be used with a tractor is a grapple (Figure 12). This device is attached to a three-point hitch or loader arms, but unlike the skidding winch the majority of these grapples do not have a cable and winch system (unlike some commercial grapple log skidders) and the tractor must be driven to each log. For gentle terrain and smooth ground this attachment would quicken the pace of skidding compared to a skidding winch.

Skidding without Attachments - Tractors, particularly medium to large horsepower tractors, have the power to drag logs across the ground. However, as mentioned earlier, this method can pose safety concerns for operators. If a tractor is used to pull logs, attaching the log directly to the drawbar decreases the tendency of the tractor to flip compared to attaching the logs to the three-point hitch and lifting the logs off the ground with the hitch. Also there are instances when attaching the logs to the front of the tractor and backing them out of difficult locations can be helpful and reduces the opportunity for flipping. Regardless, tractor skidding

can be greatly enhanced and made safer using the implements designed for skidding logs.

Summary

The use of attachments and implements specifically designed to move logs, poles, and firewood behind four wheelers and farm tractors can be of great assistance to woodland owners. Using these implements makes the work more efficient and decreases the risk of injury. A number of manufacturers and distributors handle this type of equipment. Internet searchers, trade shows, and consultation with other woodland owners and foresters can also help you find sources. The cost of log skidding plates and arches for hand and four wheeler use is relatively inexpensive, ranging from approximately \$300 for plates to \$500 to \$1,500 for arches. Trailers range from \$500 to \$5,000 or more depending upon capacity and lift options. Skidding winches and grapples for tractors range \$3,500 to \$10,000 or more. With so many options and attachments to fit a wide range of needs and budgets consider investigating the opportunities that these present. Their use will make woodland work safer, more enjoyable, and more productive.

Small Scale Logging Suppliers

A large number of companies sell small scale logging equipment. The following have provided graphics or information used in this article.

Timber Tuff Tools
www.timbertufftools.com
 (Figure 1)

Hud-son Forest Equipment
www.hud-son.com
 (Figures 10a, 10b, 12)

Logrite
www.logrite.com
 (Figures 2, 3, 4, 5, 7, 11)

Country Manufacturing
www.countryatv.com
 (Figures 6a, 6b)

Anderson Group
www.grpanderson.com
 (Cover photo, Figure 8)

About the Author:
Jeff Stringer, Ph.D., is an extension professor at the University of Kentucky and is responsible for continuing education and research in hardwood silviculture and forest operations. He is also an editor of the Kentucky Woodlands Magazine.

Cooperative Extension Service, Department of Forestry, University of Kentucky, 201 Thomas Poe Cooper Building, Lexington, KY 40546-0073; Phone: 859.257.5994; Fax: 859.323.1031; E-mail: stringer@uky.edu

From the Woods...

Kentucky Woodlands Magazine interviewed Mark and Mary Lee of BeeTree Farm to learn about their experiences with small scale logging.

KWM: Please tell us a little about your property and your management objectives.

Mark Lee: BeeTree Farm started out as 40 acres bought in 1982 and now comprises approximately 125 acres of forest lands in Menifee County. The farm is a Kentucky Stewardship Forest and also is an American Tree Farm. Mary and our two children actually lived on the property for over two years in a one-room cabin without running water.

We immediately put a management plan into play and have added to the plan with each of the next three parcels of land obtained. Each parcel had been high grade logged by previous owners, but with timber stand improvement (TSI), regeneration cuts and follow up crop tree release we have a forest composite that is mostly healthy and can stand some selective harvesting throughout the farm.

I do some logging and selling of logs to local mills and I have some firewood markets developed. We have nearly two miles of roads developed throughout the forests, which provide access to much of the farm. We also have several wildlife plots developed, we have been beekeepers since our marriage in 1976, we grow shiitake mushrooms and we have a stocked pond. We are clearing land for the addition of Katahdin sheep also. We hope to provide continued sustenance and income from the farm during our retirement years. We have friends and family hunt, fish, hike, rappel and camp on the farm, making the most of the four components of a Tree Farm: wood, wildlife, water and recreation.

KWM: Have you worked with professional foresters or other natural resource professionals on the management of your property? If so, how?

Mary Lee: Mark is a forester, but despite this we have always used the Division of Forestry for the assistance they provide. We have had wonderful success working with foresters and fish and wildlife personnel over the years. The management plan provided has been a dynamic and growing guide to our objectives and has changed as we added the additional acreages to our Tree Farm. Mark needs the added professional guidance since it can seem overwhelming at times to best manage a Tree Farm and the changes resulting from nature such as ice storms, tornado winds, pine beetles, and now the threat of the emerald ash borer. Also we have used the management incentive programs in the past to offset some of the costs of timber stand improvement and wildlife enhancements.

KWM: What types of forestry related equipment do you have and how are you using it to manage your property?

Mark Lee: Chainsaws are a must. We have several saws, as well as various hand tools, cant hooks, axes, handsaws, etc., that are used less frequently. Chainsaws are the workhorse of a tree farm, providing a means of timber stand improvement, logging, salvaging, clearing roads, and cutting firewood. We also use a debarker attachment to a chainsaw for our sawmill.

Also we have a four-wheel drive tractor with front-end loader and a logging winch that provide invaluable opportunities for working a Tree Farm. There are a myriad of attachments available for the tractor for different applications. We have a brushhog, cutting harrow and a planter to keep up the food plots. We also own a Cook's portable mill and we plan to have a home built from wood from our woods. We also provide limited custom sawing.

KWM: What advice do you have for woodland owners that are considering purchasing and using forestry related equipment on their farm?

Mark Lee: Get a management plan from the Division of Forestry and put the plan to work as soon as possible. Your plan and objectives should provide some idea of the equipment to best meet your needs. And learn how to safely use the equipment, since most of the equipment used on a tree farm can lead to serious injury and/or death. Go to field days and consider becoming a Master Logger for your farm. Working safely on a tree farm beats a workout at a gym any day for our money and health.





Division of Forestry Status Update

As was mentioned in the Kentucky Woodlands Magazine Issue 8.1, “Kentucky Woodlands New to Use,” the division has been through a major reorganization/realignment process. Nine districts were combined into five regions, and four district offices were permanently closed—Mayfield (Western district), Elizabethtown (Central district), Betsy Layne (Eastern district) and Pineville (Southeastern district). Many of the service foresters were also moved, so the one you had been working with may not be the same one you will work with in the future.

To give you an idea of where each service forester is now located, following is a brief list* by region:

Western Region

Rick Harrell
James Morris
Christine Oelschlager
Stephen Rogers

Central Region

Lisa Armstrong
Amy Carmicle-Rabich
James McDaniel
Mark Wiedewitsch
Connie Woodcock

North Central Region

Bridget Abernathy
Sean Godbold
Ben Lyle
Mike Silliman
Kent Slusher

Northeast Region

Josh Frazier
Kevin Galloway
Jason Powell

Southeast Region

Morgan Combs
Michael Froelich
Jason Hunt
Bill Knott

(*Note: This list is subject to change.)

If you want to know in which region your property is located, check the regional map below. It will take some time for our foresters and forest ranger technicians to become familiar with their new territories, local contacts, landowners and properties, so please be patient. As always, we will continue to strive to provide essential forestry services to the citizens of Kentucky.

West Region
P.O. Box 465
Madisonville, KY 42431
Phone: 270.824.7527
Fax: 270.824.7593
Seedlings:
270.247.3913

North Central Region
P.O. Box 516
Frankfort, KY 40601
Phone: 502.573.1085
Fax: 502.573.1088

Northeast Region
255 Rodburn Hollow Rd.
Morehead, KY 40351
Phone: 606.783.8625
Fax: 606.783.8628

Central Region
120 Gaines Drive
Campbellsville, KY 42718
Phone: 270.465.5071
Fax: 270.465.3575

Southeast Region
P.O. Box 702
Hazard, KY 41702
Phone: 606.435.6073
Fax: 606.435.6075

by Jack Rentz, KWOA President

Most woodland owners do not necessarily think of their property in terms of the benefits provided to society as a whole. However; when you consider the facts, the benefits are significant. In the Kentucky Forestry Economic Impact Report 2012-2013 published by the University of Kentucky, two key numbers show that the forestry sector provided more than 51,000 jobs and \$9.9 billion to the Kentucky economy in 2012. Kentucky forests also have a large, positive impact on the environment. Forests help improve air quality by absorbing carbon dioxide and improve water quality by reducing erosion and sedimentation. Forests also provide food and shelter for wildlife, and provide attractive spots for recreation.

One of the positions of the Kentucky Woodland Owners Association (KWOA) is that these benefits should be reflected in public policies as they relate to woodland ownership. These policies include real estate tax assessment at

the county level, management and educational programs at the state level, and project funding at the federal level. In order for current and future generations of woodland owners to continue to provide the public benefits described above and at the same time manage their properties in a sustainable fashion, it is essential that support for woodland ownership be continued and enhanced.

The public benefits of responsible woodland ownership have been well documented. The story is compelling, and there is a need for it to be communicated accurately and regularly to those who influence, make, or implement public policy. This communication is especially important in the current environment of increased competition for a decreasing supply of public resources. This advocacy role has been undertaken by KWOA. Three recent examples of advocacy on behalf of woodland owners are cited below.

First, KWOA has supported efforts to have the unique aspects of woodland ownership reflected in the manner in which county property valuation administrators assess forest properties. The cash rent formula used by most counties does not properly take into consid-

eration the long-term nature of timberland ownership. In the most recent legislative session KWOA members encouraged the introduction of HB 111, which addressed this issue. The bill was not enacted into law, but the advocacy activities continue.

Second, earlier this year the Commonwealth of Kentucky contemplated not rebuilding the Kentucky Division of Forestry seedling nursery in Morgan County after the devastating 2012 tornado. The loss of the nursery would have had a negative impact on Kentucky woodland owners. A decision was made to rebuild the nursery, at least partially as a result of numerous communications from KWOA members and a meeting with state officials.

Third, in May two KWOA officers Henry Duncan and Bob Gossett participated in an American Tree



Henry Duncan (left) and Bob Gossett (right) met with Kentucky Representative Hal Rodgers in Washington, D.C. to garner support for Kentucky woodland owners and the whole forestry community.

Farm System “fly in” in Washington, D.C. This was done at no cost to KWOA, and provided an opportunity to tell our story to lawmakers and others who influence public policy.

We invite readers to find out more about KWOA at our Web site, www.kwoa.net, or by contacting us at info@kwoa.net. There undoubtedly will be additional opportunities for advocacy, and we invite your ideas and involvement.

Join KWOA today by visiting our Website or by calling us at 606.876.3423.

For more information log on to www.kwoa.net



Spotted salamander

Photo courtesy: John J.D. Willson

SALAMANDERS OF KENTUCKY

by Steven J. Price

The temperature is hovering around 50°F, rain is pouring down in sheets, and it is 11:30 p.m. on a Tuesday in early April. Most people are at home, warm in their beds. But I am not. I'm slowly driving the rural roads in southern Jessamine County searching for salamanders. To encounter salamanders in Kentucky, you have to be out when most when people are not—when the weather is miserable. During these cool, rainy nights, salamanders migrate by the thousands to wetlands, ponds, and streams to find mates. Other species move about during these conditions, seeking invertebrate prey among the dead leaves and logs on the forest floor. Peering through the rain, with the aid of a flashlight, I spot my first salamander of the night—a spotted salamander. At seven inches in length, the orange and yellow spots make it among the most beautiful salamanders found in Kentucky. A few feet from the spotted salamander I spot the long toes and bluish coloration of Jefferson's salamander. I encountered seven additional species and more than 100 individuals along this quarter-mile stretch of road in the next 20 minutes. Undoubtedly, hundreds of additional individuals were moving throughout the nearby forest.

Most Kentuckians are unaware that salamanders are some of the most abundant vertebrates in the Commonwealth's woodlands. Researchers have found that some salamander populations exceed 1,600 individuals per square acre in forest land; within streams, there can be as many as one individual per square foot. Given their abundance, why are salamanders uncommonly encountered? Salamanders are amphibians, and warm temperatures and dry conditions result in overheating and water loss. Thus, most species spend daylight hours hidden underground or under rocks and decaying logs.

What salamander species are found here? Kentucky is home to 35 species of salamanders. Many of Kentucky's salamanders are considered semi-aquatic; they require aquatic habitats, such as streams or wetlands, for reproduction and development and terrestrial habitats for foraging and overwintering. Examples of semi-aquatic species include eastern newt, spotted, Jefferson's, marbled, tiger, long-tailed, and red salamanders. All semi-aquatic species have a distinct larval stage similar to the tadpole seen in frogs, which undergoes metamorphosis to an adult form.



Cave salamander

Photo courtesy: Steven J. Price

der I spot the long toes and bluish coloration of Jefferson's salamander. I encountered seven additional species and more than 100 individuals along this quarter-mile stretch of road in the next 20 minutes. Undoubtedly, hundreds of additional individuals were moving throughout the nearby forest.

A few salamander species found in Kentucky are completely aquatic—that is they never leave the lakes and rivers they inhabit. The eastern hellbender, a two-foot long, fully aquatic

decrease in dusky salamanders in some areas of Kentucky. Why should we care about salamanders? Their dietary preference for invertebrates coupled with their exceptional densities suggests an obvious benefit to residents of the Commonwealth; salamanders likely consume millions of insects each year. Furthermore, salamanders serve as prey for reptiles, birds, and mammals. Additionally, several researchers have suggested that salamander populations can indicate the overall condition of the environment. Their thin, permeable skin allows pollutants to enter freely. Keep this in mind: If water flowing through Kentucky streams is not clean enough to support salamander populations, it probably isn't clean enough to support human populations.

Photo courtesy: Jackie Guzy



Eastern Hellbender

salamander breathes entirely through its thick, fleshy folds of skin and lacks external gills. The eel-like, three-toed amphiuma is also completely aquatic and can reach approximately 4 feet in length, making it one of the longest species in North America. The ravine, zig-zag, green and slimy salamanders are completely terrestrial. Terrestrial species lay their eggs under rocks and logs in the forest, skipping the larval stage entirely. Many of Kentucky's salamanders, including all terrestrial species, lack lungs and respire entirely through their skin.

Salamander diversity varies throughout the Commonwealth. The Cumberland Plateau is home to 26 species, and many of Kentucky's salamanders are only found in this region. Species restricted to Eastern Kentucky include mountain dusky, Black Mountain, seal, Cumberland Plateau, and Wehrle's salamanders. The Jackson Purchase or Mississippian Embayment in Western Kentucky also has a few salamander species, such as the three-lined and mole salamanders, which are rare in other parts of the Commonwealth. The Western Coal Field and Bluegrass regions have the fewest salamander species, although the northern redback salamander can only be found in the Bluegrass, and streamside salamanders appear to reach their greatest densities in the Bluegrass region.

How are salamander populations doing in Kentucky?

Factors such as urbanization, mining, timber harvest, draining of wetlands, siltation of streams, pollution from agriculture and lawns, invasive species, overcollection (especially for fish bait), and disease have definitely resulted in salamander population decline throughout the Southeastern United States and likely impact Kentucky's salamander populations. Indeed, recent survey efforts have shown a significant

How can we manage for salamanders on forest lands in Kentucky?

Moist and cool conditions in many of Kentucky's forests provide favorable habitat for salamanders, especially if wetlands, seeps, streams, caves, and talus slopes are embedded within the forest. In woodlands, several management techniques can be used to maintain salamander populations. Most importantly, timber harvests should be minimized within or adjacent to wetlands, streams, and ravines. Meeting or exceeding Kentucky Streamside Management Zones (SMZs) is highly recommended. Secondly, partial harvesting as opposed to clear-cutting a woodlot will reduce harvest-related population declines; allowing dead trees and woody debris to decompose naturally creates habitat for salamanders on the forest floor. Third, minimize soil disturbance and compaction; most salamander species spend the majority of their lives underground or under debris on the forest floor. Minimizing soil disturbance also prevents sediments from running into streams and wetlands. Finally, when using pesticides and/or fertilizers near wetlands and streams, always carefully follow instructions prior to application and only use those products that do not cause harm to aquatic organisms. These management techniques will not only benefit salamanders, but other wildlife found in Kentucky forests.



Southern two-lined salamander

Photo courtesy: Kristen Cecala

About the Author:

Steven Price, Ph.D., is an Assistant Professor of Stream and Riparian Ecology at the University of Kentucky Department of Forestry. His research focuses on the conservation and management of aquatic and semi-aquatic animals, especially amphibians and reptiles.

Department of Forestry, University of Kentucky, 208 Thomas Poe Cooper Building, Lexington, KY 40546-0073; E-mail: steven.price@uky.edu; 859.257.7610

FORESTRY 101

Painting Trees

by Chris Osborne

Whether marking a path to a deer stand, painting property boundaries, or even working with a professional forester to mark a timber stand improvement, the need occasionally arises for woodland owners to paint trees. To do the job properly, there are a few tips and recommendations that will help improve the effectiveness and efficiency of the marking.

To begin, we look at the types of paint available, their differences as well as application methods. There are paints available specifically for tree application. These paints are formulated to be used either for short-term applications, such as marking trees to be cut, or long-term applications, such as painting boundaries. Both “tree marking” and “boundary marking” paints are readily available from forestry supply companies.

Tree Marking

Tree-marking paint is typically used in situations where there isn't a need for the paint to remain visible for an extended period of time. Tree-marking paint will typically remain visible on trees for up to three years. This paint comes in a variety of sizes, such as aerosol, quart, and gallon cans.

Tree-marking paint is typically sprayed onto trees not brushed. There are a variety of gun type sprayers available for tree marking. Some spray guns are designed to screw directly onto the quart cans. There are backpack sprayers as well as pressurized applicators. It is important to remember when spraying paint to wear old clothes and use caution on windy days. The type of spray applicator you use determines the distance you must be from the tree. A Panama Paint Gun (see following page) allows the greatest distance with its pressurized system. The quart mounted gun sprayers are typically used up to ten feet from the tree. Of course aerosols are similar to normal spray paint, so they require a much closer application distance. When using tree-marking paint, applications are typically applied in spots at eye level. These “spots” of paint should be circular and at least a few inches in diameter.

When marking trees for a timber stand improvement or harvest ensure the same color of paint is used uniformly and put in writing if using a contractor. For example, trees to be cut are marked in one color while trees to be retained are painted using another color. To avoid timber theft during a harvest, always place a spot of paint at eye level as well as



Photos courtesy: Chris Osborne

Trees can be painted for a variety of reasons and in different ways depending on your objective. This tree has been painted with blue dots at chest and stump height indicating the tree will be removed. Matching the right paint and applicator is critical to an effective tree painting project. A spray gun that screws right on to the paint can was used for this application.



below stump height (less than 12 inches above ground). Applied paint should face the same direction as well. If some trees are marked on the uphill side and some on the downhill side, this can create confusion and lead to trees not being removed or conversely trees to be retained may be cut.



A Panama Paint Gun, with its pressurized system, allows users to paint trees from approximately 20 feet away. This can be very helpful in rugged terrain.

It is important to remember to clean the application equipment when finished. It is best to clean any screens or filters on the marking guns as well as run mineral spirits or paint thinner through them. This cleaning can be accomplished by filling an empty spray container with the thinner or mineral spirits then pumping it through the gun until the spray changes from paint to thinner or spirits.

Boundary Marking

Boundary paint is applied when there is a need for long-lasting marking. This type of paint can be seen on trees for as much as ten years or more. Boundary-marking paint is considerably thicker than tree marking paint and as a result is applied using a brush. While boundary-marking paint can be mixed with a thinner and sprayed, this reduces the residual effect of the paint considerably.

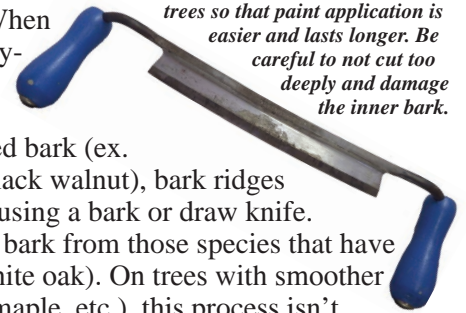
It takes longer to paint trees using boundary-marking paint, as you must be within arm's length of each tree you intend to paint. Boundary marking is inherently messier than tree marking, as carrying a gallon can around in the woods is no easy task. As implied by the name, boundary-marking paint



Specialized tree marking paint is used for marking boundaries. When applied correctly boundary paint can last ten years.

is used for just that – marking boundaries. When applying boundary-marking paint to trees with rough

A draw knife can be used to smooth the rough bark ridges on boundary trees so that paint application is easier and lasts longer. Be careful to not cut too deeply and damage the inner bark.



or deeply furrowed bark (ex. chestnut oak or black walnut), bark ridges can be smoothed using a bark or draw knife. Also knock loose bark from those species that have flaky bark (ex. white oak). On trees with smoother bark (beech, red maple, etc.), this process isn't necessary. Paint should be applied in bands across the face of the tree. Also, the boundary-marking paint should be applied from a direction so that those approaching the boundary are alerted to the change. If the objective is for people to know when they are leaving your property, the paint should face toward your property. If the purpose is to alert adjoining landowners they are entering your property, then the paint should face the adjoining landowner's property. If both are objectives then it becomes necessary to paint both sides of the tree. Paint should be applied at eye level, so it is prominent to those approaching the boundary.

As with tree-marking paint, be sure to remember the clean-up when finished. Brushes should be cleaned with mineral spirits or paint thinner and draw knives oiled to prevent rusting.

Tree-Marking Equipment:

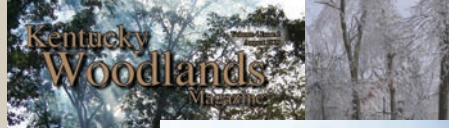
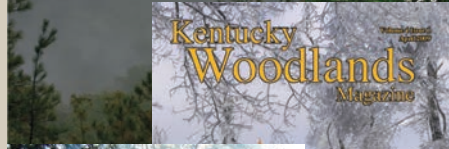
- Tree- or boundary-marking paint: Available from Forestry-Suppliers and Ben Meadows
- Hand-held tree-marking guns: Available from Forestry-Suppliers and Ben Meadows
- Marking guns with tanks: Available from Forestry-Suppliers and Ben Meadows
- Backpack marking guns: Available from Forestry-Suppliers
- Bark or draw knife: Available from Baileys, Forestry-Suppliers and Ben Meadows
- Paint brush: Available at local hardware stores as well as Forestry-Suppliers and Ben Meadows

www.baileysonline.com
www.forestry-suppliers.com
www.benmeadows.com

About the Author:

Chris Osborne is the Management Forester at the University of Kentucky's Robinson Forest in eastern Kentucky. Chris coordinates, conducts, and documents forest management activities at Robinson Forest. He facilitates the use of Robinson Forest by those approved to conduct teaching, research and Extension activities.

Department of Forestry, University of Kentucky, 617 Clemons Fork Rd., Clayhole, KY, 41317; Phone: 606.666.9995; E-mail: chris.osborne@uky.edu



Kentucky Woodlands Magazine Survey



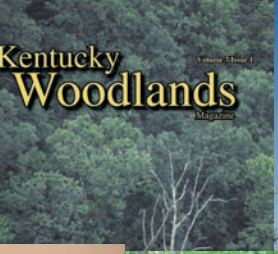
The first issue of Kentucky Woodlands Magazine was published eight years ago, and since then we have continued to work hard to provide the woodland owners of Kentucky, and those who serve them, information and resources to assist with their care and management efforts. A wide variety of forestry, wildlife, and natural resource subjects have been covered over the years, and we have strived to deliver timely articles and information so you can better respond to issues and threats related to your woodland. Whether it was ice storms, late freezes, timber theft/trespass, invasive plants, or damaging exotic insects such as the emerald ash borer that put your woodlands at risk, we have provided the information you need to make well-informed decisions regarding the care and management of your woodlands.

Many of you have provided valuable feedback over the years, letting us know how we are doing and what you would like to see in future issues—Thanks for the feedback. We are now conducting a more formal survey regarding Kentucky Woodlands Magazine and we need your assistance. This survey will give readers the opportunity to let us know how we are doing, what we can do better, and your answers will allow us to determine the usefulness of the magazine to the forestry community in Kentucky. We want to make sure that this magazine continues to promote stewardship and sustainable management of Kentucky's non-industrial private forests, and we need your help.

This issue of Kentucky Woodlands Magazine contains a pull-out survey that we ask you to please complete and return. In addition, a random sample of subscribers will receive a direct mail survey. This survey can also be taken online at www.KWMSurvey.org. The survey will only take a few minutes to complete, but the feedback you provide will be valuable as we work to serve the woodland owners of Kentucky for years to come. Please take the time to complete this survey by October 25, 2013. We want to know what you think. Thanks in advance for helping us to improve the Kentucky Woodlands Magazine.

Facts about Kentucky Woodlands Magazine:

- 12,000 copies of each issue are printed
- 10,400 subscribers (average)
- 220 articles have been written since the first issue was published in July 2006



Ever wonder how your wooden cutting board or kitchen table started out as a tree but now resides in your home? What process did it take to create the finished product? Wonder no more, as the Kentucky Wood Expo is coming to Lexington this fall.

Sponsored by the Kentucky Forest Industries Association (KFIA), the Expo will be held at Masterson Station Park located in Lexington, Kentucky, on Friday, September 20, and Saturday, September 21. The Expo will offer a variety of demonstrations and equipment related to the wood industry, finished wood products produced by Kentucky craftsmen, educational presentations and much more. (See schedule on following pages.)

Just exactly what will be at the Expo? What won't be is the better question. Even if you have attended the Expo in the past, you and your family are in for a big treat as more events, educational presentations and shows have been added this year.

On Friday, September 20, the gates and exhibits open at 9 a.m. Youth from all over the state will be participating in forestry-related activities. Approximately 1,000 elementary students will learn the importance of the wood industry, while high school youth

compete for prizes in forestry-related competitions such as tree and wood identification, insect and diseases, and chainsaw part identification.

In addition to more than 100 inside and outside exhibits, the young and old alike will enjoy the University of Kentucky's Critter Tent. Both days, this hands-on tent allows visitors to handle and gaze upon several nonvenomous, live amphibians and reptiles. This tent will also house UK Entomology's insect and spider "petting zoo," featuring live tarantulas, scorpions, giant roaches, and other creatures. The Critter Tent will be an opportunity for people to get a close look at some very unusual creatures in a safe, educational environment.

Beginning at 11 a.m. on Friday, The IronJack Traveling Shows and Competitions (aka Lumberjack Feud) from Pigeon Forge, TN, will be performing live lumberjack competitions such as sawing, pole climbing and log rolling. But don't worry if you can't make it early Friday as they will be competing three times a day, both days.

Friday at 6 p.m. you won't want to miss the Local Celebrity Forestry Competitions. Local Police, Fire and fitness center personnel will battle it out to see who is the Top Forestry Champion in Lexington. They will be participating in cross-cut sawing, axe throwing, and stock chainsaw competitions. For many of them, this will be the first time they have participated in these types of competitions.

Be prepared to be amazed as you watch Mike Pace of the Stihl Pro Carving Team from Ohio sculpt regular logs

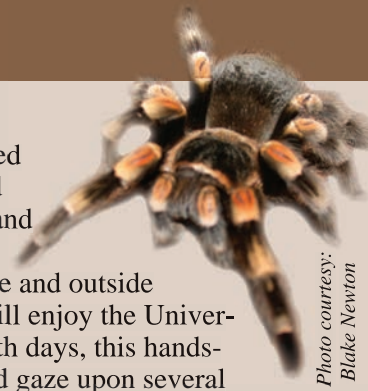


Photo courtesy: Blake Newton



Photo courtesy: McConnell Springs
Several Kentucky craftsman will be at the Expo showcasing their talents.



Photo courtesy: KFIA

Experience All Things Wood

by Reneé Williams



into beautiful works of art using only a chainsaw. He has made ordinary pieces of wood come to life as bears, eagles and foxes. Four times a day he will showcase his artistic abilities and then auction his carvings off to the public.

Several events will be held continuously throughout both days such as sawmill and heavy equipment demonstrations, craft and food booths, and music. A truck totally powered by wood will also be on display. Those who participate in the cutting board workshop will receive a beautiful hardwood cutting board made from local Kentucky grown trees to drill, sand, and finish on-site. While participating you will learn how important the wood industry is to Kentucky's economy. Cutting boards are being donated by Kentucky Forest Industries Association members and the University of Kentucky Department of Forestry.



Photo courtesy: KFIA
Chainsaw carvers will be creating works of art like the above at this year's Expo.

Attendees of the Expo will also have the chance to guess the weight of an enormous log. Expo participants who guess closest to the actual weight will win prizes. Logs at past Expos have weighed in at over 10,000 pounds!

Also held both days will be the Log A Load for Kids Silent Auction. Several donors have

given auction items to raise funds for the Kentucky Children's Hospital. Everyone is invited to participate in this worthwhile event. Since 1997, KFIA has contributed over \$375,000 to the UK Children's Hospital.

On Saturday, September 21, Expo activities begin with the Log Some Miles 5K Race. Race participants will be running on a beautifully mowed course and, at times, running along the stream at lower Masterson Station and through lightly wooded areas. If you'd like to participate in the Log Some Miles 5K Race, visit www.kfia.org/KentuckyWoodExpo/LogSomeMiles5KRace.aspx to register. All preregistered participants will receive free admission into the Kentucky Wood Expo and a Log Some Miles t-shirt. Registration begins at 7 a.m. A portion of the proceeds from the 5K Race will support the Kentucky Children's Hospital.

The University of Kentucky (UK) Forestry Extension will offer a wealth of options throughout the day for attendees to learn more about forestry and forestry-related topics. Starting at 8:30 a.m. with the Woodland Owners Short Course (WOSC), this program is designed to help the novice to the more experienced woodland owner learn how to care for and manage their woodlands. Topics covered range from tree identification to discovering what forest threats might affect participants' woodlands such as the

Emerald Ash Borer. Two tracks will be taught during the all-day program: the green track, for the novice or less experienced woodland owner, and the gold track for the more experienced owner. Both tracks will visit equipment demonstrations to help them get a feel for some of the equipment that could help them maximize their woodlands potential. If you would like to register for the Woodland Owners Short Course or learn more about it, visit www2.ca.uky.edu/forestryextension/WOSC.php. Registration for the WOSC includes admission to the Expo both days.

UK Forestry Extension will also have multiple educational presentations from nature photography to tree and snake identification to urban tree care just to name a few. These 50-minute discussions will take place throughout the day on Saturday. (See page 17 for details.)

Forestry students from the University of Kentucky and several surrounding states will take part in forestry-related competitions. At various times throughout the day on Saturday, these universities will compete for bragging rights in competitions such as ax throw, stock chainsaw, and underhand chop.

Expo attendees can see heavy equipment in action during the annual Skidder and Knuckleboom competitions. Any qualified person 18 years or older may participate in these competitions. The skidder contestant must pull three logs through an obstacle course of cones without knocking them over. Knuckleboom competitors must stack num-



Photo courtesy: KFIA
Expo attendees will see heavy equipment in action such as this knuckleboom.

bered logs in a designated area and return them to their designated area all within an allotted time frame. Don't miss out on this exciting opportunity to experience all things wood at this year's Expo. For a full schedule of events or to order advance tickets, contact KFIA at 502.695.3979. The Expo is open from 9 a.m. to 7 p.m. on Friday and from 8:30 a.m. to 4:30 p.m. on Saturday. Admission is \$7 (\$5 in advance) at the gate for adults and \$5 for children 6 to 12 years old (under 6 are free). For more Expo information visit www.kywoodexpo.org.



Participants at the WOSC will learn a variety of forestry-related topics teaching them how to manage their woodlands.

Photo courtesy: Billy Thomas



Photo courtesy: KFIA

Attendees can guess the weight of an enormous log to win prizes.

Educational Opportunities Offered at the Kentucky Wood Expo

The Kentucky Wood Expo offers an abundance of educational opportunities for you as a woodland owner on Saturday, September 21, in the UK Forestry Education Area at Masterson Station Park in Lexington, KY. These presentations are sponsored by the University of Kentucky Department of Forestry.

Beginning at 9:30 a.m., Dave Leonard from Dave Leonard Tree Specialists will present **What is Emerald Ash Borer and How Can You Protect Your Ash Trees?** This talk will give the home- and woodland owner alike, the information they need to tackle this exotic beetle. A range of topics will be covered from how to determine if trees are in need of protection and the different ways to protect them to dealing with trees that are already infested.

Dr. Steven Price, University of Kentucky's Department of Forestry's Assistant Professor of Wildlife Ecology, will present **Amphibians and Reptiles in Kentucky's Forest, with Special Emphasis on Snake Identification** at 10:30 a.m. In this talk, he will discuss how amphibians and reptiles are common components of Kentucky's forests and will show some of the most common woodland species landowners may encounter. Dr. Price



Photo courtesy: J.D. Willson
Amphibians and reptiles are common components of Kentucky's forests.

will also introduce some of the ways in which land managers and woodland owners can protect and enhance habitats for amphibians and reptiles.

At 11:30 a.m. **Digital Cameras, Lenses, and Accessories for Outdoor Photography** will be presented by Dr. Tom Barnes, University of Kentucky's Department of Forestry's Extension Professor and Extension Wildlife Specialist. In this session participants will learn such things as the difference between a point and shoot and a DSLR camera. Dr. Barnes will also cover the basics of digital photography equipment including cameras, lenses, tripods, and other accessories. Participants can bring their own equipment and are encouraged to ask questions.

Then at 12:30 p.m. you can learn how to put your camera to work as Dr. Tom Barnes presents **Nature Photography**. Participants will be introduced to the concepts and principles of making outstanding nature photographs, ranging from close-ups of flowers to wide-reaching landscapes and wildlife. Basic concepts related to light and composition will be emphasized and example photographs will be used to highlight concepts. Learn about the art and science of nature photography and what makes a good photograph.



Photo courtesy: Tom Barnes
Dr. Barnes will show attendees the fundamentals of taking nature photographs.

Also at 12:30 p.m. Dave Leonard will present **Residential Tree Care – What Your Tree Really Needs When You Take It Out of the Forest**. In this presentation, Mr. Leonard will give tree pruning and maintenance techniques that will allow your tree to live its normal life span in your urban environment. He will focus on maintenance practices that owners can do themselves as well as those that require a professional arborist.

Beginning at 1:30 p.m., participants may attend **Wildlife Food Plots or Wood Identification**. Clay Smitson, a Private Lands Wildlife Biologist with the Kentucky Department of Fish and Wildlife Resources, will present information on wildlife food plots and their establishment and maintenance. Both annual and perennial forage plantings will be discussed along with details on site selection and wildlife species preferences. Dr. Terry Conners, University of Kentucky's Department of Forestry Associate Professor, will help participants learn the basics of wood structure as well as how to identify more than a dozen of the most common types of wood.

Two other classes will be offered at 2:30 p.m., **Ecology and Restoration of the American Chestnut** and **Wildlife Damage Control**. Lynn Garrison, President of the Kentucky Chapter of the American Chestnut Foundation, will present the Ecology and Restoration of the American Chestnut. Bell County University of Kentucky Extension Agent for Agriculture and Natural Resources Stacy White will present Wildlife Damage Control.

The last presentation of the day starts at 3:30 p.m. with **Tree Identification: Looking Beyond All Those Leaves**. Doug McLaren, University of Kentucky's Department of Forestry's Area Extension Forester, will help participants walk away with the skills necessary to identify trees in Kentucky. The process is not difficult and will open a new understanding of a natural renewable resource valuable to Kentucky and its wood industry.



Photo courtesy: Reneé Williams
Learn how to identify trees at the Expo.

For more information about these educational opportunities, call UK Forestry Extension at 859.257.7597. All of these UK Forestry Extension education opportunities are free with Expo admission.



Kentucky Wood Expo Schedule of Events*

Friday, September 20

9:00 a.m.	Gates & Exhibits Open	11:00 a.m.	IronJack Timber Team (Performed by Lumberjack Sports International)
9:00 a.m. - 7:00 p.m.	Log A Load for Kids Silent Auction	11:00 a.m.	High School Youth Forestry FFA Competition – Preregistration required
9:00 a.m. - 1:30 p.m.	EKSAF and KACF 2013 Fall Meeting and Center for Forest and Wood Certification Cooperating Forester Update	1:00 & 4 p.m.	IronJack Timber Team
9:00 a.m. - 7:00 p.m.	Critter Tent	1:00 - 4:00 p.m.	Kentucky Master Logger Training
9:00 a.m. - 1:30 p.m.	Youth Programming – Preregistration required.	2:00 - 6:00 p.m.	Create Your Own Cutting Board
		6:00 - 7:00 p.m.	Local Celebrity Forestry Competitions
		7:00 p.m.	Gates Close



Saturday, September 21

7:00 a.m. - 8:30 a.m.	Registration for Log Some Miles 5K Race	12:30 - 1:20 p.m.	Residential Tree Care – What Your Tree Really Needs When You Take It Out of the Forest – Dave Leonard, Dave Leonard Tree Specialists
8:00 a.m. - 4:30 p.m.	Kentucky Woodland Owners Short Course	1:00 p.m.	Skidder Contest
8:30 a.m.	Gates & Exhibits Open	1:00 p.m.	IronJack Timber Team
8:30 a.m. - 2:30 p.m.	Log A Load for Kids Silent Auction	1:30 - 2:20 p.m.	Wildlife Food Plots – Clay Smitson, Kentucky Department of Fish and Wildlife Resources
8:30 a.m. - 4:30 p.m.	Create Your Own Cutting Board	1:30 - 2:20 p.m.	Wood Identification – Terry Conners, UK Department of Forestry Associate Professor
8:30 a.m. - 4:30 p.m.	Critter Tent	2:30 - 3:20 p.m.	Ecology and Restoration of the American Chestnut – Lynn Garrison, KY-TACF President
9:00 a.m.	Log Some Miles 5K Race	2:30 - 3:20 p.m.	Wildlife Damage Control - Stacy White, Bell County Extension Agent for Agriculture and Natural Resources
9:30 - 10:20 a.m.	 What is Emerald Ash Borer and How Can You Protect Your Ash Trees? – Dave Leonard, Dave Leonard Tree Specialists	3:00 p.m.	IronJack Timber Team
9:30 - 11:20 a.m.	Kentucky Master Logger Training	3:30 - 4:20 p.m.	Tree Identification: Looking Beyond All Those Leaves – Doug McLaren, UK Department of Forestry Extension Forester
10:00 a.m.	Knuckleboom Contest	4:30 p.m.	Gates Close
10:30 - 11:20 a.m.	Amphibians and Reptiles in Kentucky's Forest, with Special Emphasis on Snake Identification – Dr. Steven Price, University of Kentucky's Department of Forestry's Assistant Professor of Wildlife Ecology		
11:00 a.m.	IronJack Timber Team		
11:30 a.m.	Live Country/Bluegrass Music		
11:30 a.m. - 12:20 p.m.	Kentucky Master Logger Training		
11:30 a.m. - 12:20 p.m.	Digital Cameras, Lenses, and accessories for outdoor photography – Dr. Tom Barnes, UK Department of Forestry's Extension Professor & Extension Wildlife Specialist		
12:30 - 1:20 p.m.	Nature Photography – Dr. Tom Barnes, UK Department of Forestry's Extension Professor & Extension Wildlife Specialist		

*Schedule of events is subject to change.

About the Author:

Reneé Williams, is an Information Specialist Senior at the University of Kentucky Department of Forestry and is responsible for graphic design and marketing for Forestry Extension. She is also an assistant editor and graphic designer of the Kentucky Woodlands Magazine.

Cooperative Extension Service, Department of Forestry, University of Kentucky, 216 Thomas Poe Cooper Building, Lexington, KY 40546-0073; Phone: 859.257.7597; Fax: 859.323.1031; E-mail: renee.williams@uky.edu

Kentucky is one of the few states in the U.S. that regulates, through the Kentucky Forest Conservation Act, the use of logging Best Management Practices (BMPs) to protect water quality. The law also requires the presence of trained Kentucky Master Loggers on-site and in charge of the operation. The Kentucky Division of Forestry (KDF) inspects logging operations for the use of BMPs and presence of a Kentucky Master Logger.



LOGGING AND WOODLAND OWNERS

HOW TO PROTECT YOURSELF FROM BAD ACTORS

by Jeff Stringer and Mark Schuster



Figure 1 (above): When skid trails are no longer in use any ruts should be removed and permanent water control structures such as water bars installed. Skid trails that are erodible should be seeded to initiate grass cover.

Logging BMPs that are common to Kentucky include rut removal, water control structures and seeding of skid trails (Figure 1) and the proper crossing of streams and channels (Figure 2). Woodland owners can benefit from this law by having their logging operation inspected by KDF to help ensure that everything is being done correctly to protect water quality. If a problem does arise, KDF will let you know and the law is designed to allow the loggers to correct a problem. Typical problems include logging roads and trails that are not properly retired from use where ruts remain and gullies form, or where streams are not properly crossed leading to increased sedimentation of the stream (Figure 3). If found in violation,



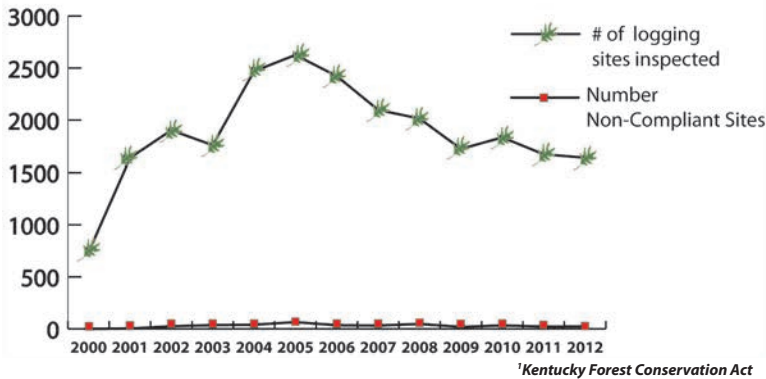
Figure 2 (right): Kentucky BMPs require the use of proper stream and channel crossing. This could include hard bottom crossings or the use of elevated crossing like the culvert shown above.

All photos courtesy: Jeff Stringer

the logger will have four opportunities to correct the issue. However, if the logger does not ultimately correct the problem the four-step process can lead to the logger being designated a Bad Actor and fined \$1,000 per violation. It is important to know that the Bad Actor can be a logging firm or an individual (if they are a sole proprietor). Regardless, the Bad Actor designation means that they did not abide by the law. Further, a logging firm can have multiple Bad Actor designations and are commonly referred to as Repeat Bad Actors. It is the latter that are the most troubling, indicating that these firms or individuals are unwilling or unable to abide by commonly recognized practices to protect water quality.

Fortunately, the number of Bad Actors is relatively low and the number of repeat Bad Actors is very low compared to the number of logging operations in Kentucky. Figure 4

Figure 4. Logging Sites Compliant with KFCA¹



shows the number of logging jobs that are inspected annually compared to the relatively small number of logging jobs that ultimately did not comply with the law. Figure 5 shows the number of Bad Actors and Repeat Bad Actors by KDF region, with the eastern regions of Kentucky having a higher number of Bad Actors. The latter is due to a number of factors including the total number of loggers which is higher in these regions compared to other regions in the state. Between 2000 (the year the Act went into effect) and 2012 there have been 190 Bad Actor designations. A number of these Bad Actors are no longer in business. During this time, there have been 85 repeat Bad Actors, which represents less than 5 percent of the loggers in Kentucky. The Repeat Bad Actors are responsible for 72.4 percent of the logging operations that

Figure 5. Number of Bad Actors by KDF Region

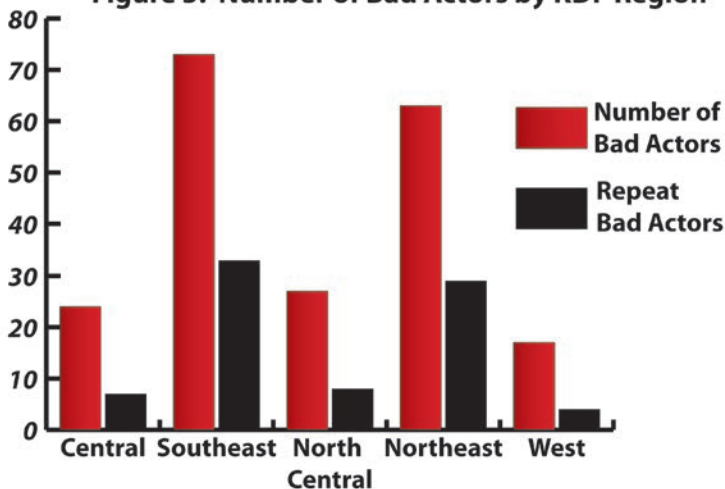


Figure 3. When BMPs are not used rutting of skid trails and haul roads can occur (above) or mud holes around streams and channels are common (below).



are in non-compliance. As these numbers indicate, repeat Bad Actors are problematic. The issue of Repeat Bad Actors was not envisioned when the Act was developed, and provisions have recently been made that make the law and its enforcement more proactive when it comes to dealing with Repeat Bad Actors.

Woodland owners can find a list of Bad Actors on the Kentucky Master Logger website www.masterlogger.org, and the ones that have multiple designations (Repeat Bad Actors) can be determined by scanning the list. If you want to know if a specific logger has a Bad Actor designation, you can also search the Master Loggers by name and the listing of information for each logger contains whether they are designated as a Bad Actor.

About the Authors:

Jeff Stringer, Ph.D., is an extension professor at the University of Kentucky and is responsible for continuing education and research in hardwood silviculture and forest operations. He is also an editor of the Kentucky Woodlands Magazine.

Cooperative Extension Service, Department of Forestry, University of Kentucky, 201 Thomas Poe Cooper Building, Lexington, KY 40546-0073; Phone: 859.257.5994; Fax: 859.323.1031; E-mail: stringer@uky.edu

Mark Schuster is a Forestry Program Specialist with the Kentucky Division of Forestry. He is also the Kentucky Master Logger Program Coordinator.

KY Master Logger, 222 Thomas Poe Cooper Building, Lexington, KY 40546-0073; Phone: 859.257.6230; Fax: 859.323.1031; E-mail: kml@uky.edu



Kentucky Tree Farm Committee Newsletter

What does it take to become a National Tree Farm Champion?

by Pam Snyder

The title question of this article has been asked by many Kentucky Tree Farmers over my career as a forester with the Kentucky Division of Forestry. There is not a simple answer, however the first step is to become a Kentucky Tree Farmer and win the state Tree Farmer of the Year competition. Previous Kentucky state winners are often nominated for the regional level competition. If they win, they are entered into the national competition where they compete against Tree Farmers from across the United States. The steps seem fairly straightforward and easy, but the competition is usually stiff. Winning the state competition is a significant accomplishment and the regional is an even bigger accomplishment, but winning the national competition is exceptionally challenging—so far, the only Kentucky Tree Farmer to win the national competition was Pete McNeill of Fleming County.

The Kentucky Tree Farm Committee has profiled state and regional winners through the Kentucky Woodlands Magazine over the years, and while their Tree Farms may be different, they are all committed to managing and caring for their land. From a forester's perspective, it takes a long-term commitment on the part of a Kentucky Tree Farmer to manage his or her forest land sustainably. The diversity of forest-management activities completed by Tree Farmers may seem astronomical and daunting at times, but it does have its rewards. Tree Farmers do much more than just tree planting, timber stand improvement, or wildlife and recreational activities on their property. They also exhibit the devotion of being Tree Farmers and passing that knowledge and aspiration of forestry onto the next generation and the public alike.

In addition to properly managing and caring for his or her land, a national Tree Farm champion must also be able to demonstrate fervor for forest management, outreach, education, and legislative and grass-roots activities over his or her time as a Tree Farmer. Again, it is not an easy question to answer because every Kentucky Tree Farmer is unique. Fortunately, there are plenty of resources and people available to assist Kentucky woodland owners. The Kentucky Tree Farm Committee and the whole Kentucky forestry community are resources for all woodland owners, whether they just want to have healthy and productive forests or they someday want to be a National Tree Farm Champion. These folks are willing and able to assist you in the care and management of your land, and all you have to do is ask.

Tree Farmer of the Year Field Day

Join us on October 3, 2013 at the Sebaugh Tree Farm as we tour and celebrate the 2012 Tree Farmer of the Year winner. The Sebaugh Tree Farm lies in the southeastern part of Edmonson County. For details about the free field day and to register call 859.257.7597 or visit www.ukforestry.org.

Congratulations - 2012 Kentucky Tree Farmer, Inspector, and Logger of the Year!

Photos courtesy: Kentucky Forest Industries Association

2012 Kentucky Tree Farmer of the Year:



Perry and Margaret Sebaugh, Edmonson County

2012 Kentucky Tree Farm Inspector of the Year:



Hagan Wonn, Pulaski County

2012 Kentucky Logger of the Year:



French Logging, Breckinridge County

Kentucky Champion Tree Program

Moore's Magnificent Walnut

by Diana Olszowy

Many years ago, Green County residents Sam and Mimi Moore discovered a very large black walnut tree on their property. Unbeknownst to them at the time, their walnut was the largest in the state and by 2007 it was officially recognized as Kentucky's state champion black walnut.

To give you an idea of how impressive this tree is, black walnuts normally average from 6 to 8 feet in circumference. This champ is over 205 inches in circumference (that's over 17 feet around) and is 90 feet tall. It is quite happy with its current growing conditions—full sun and moist, rich, well-drained soil, which happens to be the ideal site conditions for walnuts. Their natural range extends from Vermont and Massachusetts, west through Ontario to South Dakota and south to Texas and east to Florida.

They are relatively fast-growing trees and, unlike most hardwoods, develop and maintain a taproot that can grow deep depending upon root competition from other species. And in an attempt to give themselves an edge, their roots contain a toxic chemical called juglone that inhibits root growth and eliminates competition from juglone-sensitive species, including tomatoes, potatoes, peas, peppers, alfalfa, chestnut, pine, apples, lilac, serviceberry and others. The black walnut's poison does not work on all plant species and some even thrive on it (bush honeysuckle).

Walnut is an easy tree species to identify during all seasons—dark brownish-gray deeply furrowed bark with a diamondback pattern; long compound leaves with 11 to 23 leaflets that have a pungent smell when rubbed or bruised; stout twigs with a prominent terminal bud and leaf scars that resemble monkey faces. Walnuts produce a large edible nut that is covered with a thick green outer husk that will ripen to a yellow-black color. Good seed crops occur irregularly, perhaps twice in five years. Walnuts were referred to as “our best friends” in times of war and peace. Native Americans and early settlers used it for food, dyes ink, medicine, fence posts, gunstocks and

Photo courtesy: Kentucky Division of Forestry



Photo courtesy left:
Jason Sharman, Vitalitree, Bugwood.org



Black walnut is one of the easiest trees to recognize because of its distinguishing features. The dark furrowed bark, large leaves with up to 23 leaflets (above), and the highly recognizable nut in its husk (right) all aid in the identification of this important tree.



Photo courtesy: Franklin Bonner, USFS (ret.), Bugwood.org

fine furniture. The straight-grained wood is valued for its beautiful dark chocolate-brown color and is considered to be one of the most valuable hardwoods in Kentucky, if not “the” most valuable.

The species has a few insect/disease problems such as walnut caterpillars, webworms, various borers, including the newest threat of Thousand Canker Disease. (See KWM, Volume 7, Issue 2, “New Tree Pests Threatening from the North and South” for more information). Overall, walnuts are fairly resilient trees, not particularly good for urban landscapes but definitely a species you want to encourage to grow in your woods, especially if you are a squirrel hunter.

This magnificent walnut stands as a living memorial to Sam Moore, and with the help of his wife Mimi his legacy will last for years to come.

About the Author:

Diana Olszowy is Stewardship Branch Manager with the Kentucky Division of Forestry. She is also an editor of the Kentucky Woodlands Magazine. Kentucky Division of Forestry, 627 Comanche Trail, Frankfort, KY 40601; Phone: 502.564.4496; Fax: 502.564.6553; E-mail: diana.olszowy@ky.gov

Test Your Knowledge

Submit your answers at www.ukforestry.org. The randomly selected entry of those with the most correct answers will receive a free copy of *Identifying Kentucky's Forest Trees*.

1. Woodland owners interested in moving logs around their woods should be cautious. When logs are dragged across the ground they can hang on rocks, stumps, or uneven ground causing tractors or ATVs to flip over. A number of attachments are available to address this issue by _____?



Hint: See article on page 1.

- a) adjusting the tension on the pull cables
- b) raising the front end of the log off the ground
- c) incorporating a quick release mechanism when logs hang up

3. Every year the Kentucky Tree Farm Committee selects a Tree Farmer of the Year. A field tour is scheduled at the most recent winning Tree Farm on October 3, 2013. In which county is the Tree Farm located?



Hint: See article on page 20.

- a) Adair
- b) Edmonson
- c) Mason
- d) Webster

4. The Kentucky Master Logger program classifies Bad Actors as loggers that have a BMP violation and fail to correct it. The majority of all BMP violations can be traced to _____.

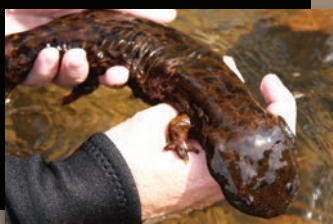
- a) Super Bad Actors
- b) Out of State Bad Actors
- c) Delinquent Bad Actors
- d) Repeat Bad Actors



Hint: See article on page 18.

5. Most Kentuckians are unaware that salamanders are some of the most abundant animals in woodlands of the Commonwealth. How many different species of salamanders are there in Kentucky?

- a) 35
- b) 55
- c) 75
- d) 115



Hint: See article on page 8.

6. Kentucky Woodlands Magazine is conducting a survey to learn what readers think about the magazine and to let us know what they would like to see in future issues. We need as many responses as possible. Will you please complete and return the survey?

- a) Yes
- b) No



Hint: See article on page 12.



Scan this code with your smartphone or tablet device to submit your answers.

kentucky WOODLANDS

Emerald Ash Borer Continues to Spread

The Emerald Ash Borer has been confirmed in three more counties (Bourbon, Carroll, and Whitley). The State Entomologist, who is also the chairman of the Kentucky Forest Health Task Force, has called a meeting of the task force for early this fall to discuss the continuing spread of the emerald ash borer and to consider revising the current quarantine. The decision to change the quarantine boundaries is a significant one and the impact on the wood industry,

woodland owners, and the ash trees of Kentucky are all considered. The Kentucky Forest Health Task Force makes recommendations on the quarantine boundaries and forwards them on to the Kentucky Agriculture Commissioner who will make the final decision.



Photo courtesy: Debbie Miller, USDA Forest Service, Bugwood.org

Fall Forest Fire Hazard Season Coming Soon

The Fall Fire Hazard Season starts on October 1 and runs through December 15. During the fire hazard seasons it is illegal to burn within 150 of any woodland or brushland between the hours of 6 a.m. and 6 p.m. There is a high risk of forest fires during this time of year because leaves are on the ground, humidity levels are lower, and sunlight can reach and warm the forest floor creating conditions where fire can quickly spread. To report a fire contact the Kentucky Division of Forestry office that serves your county—check out page 6 of this issue of the magazine for a map that has the phone numbers for each regional office.



Photo courtesy: Dale Wade, Rx Fire Doctor, Bugwood.org

Woodland Owners Short Course at the Kentucky Wood Expo



The final Woodland Owners Short Course of 2013 is being held in conjunction with the Kentucky Wood Expo. This unique opportunity will allow WOSC attendees to experience prearranged equipment demonstrations and experience many of the offerings of the Kentucky Wood Expo.

If you'd like to attend the WOSC, register at www.ukforestry.org or call 859.257.7597.



Upcoming Dates To Remember:

Date:	Event:	Location:	Contact:
September 20-21	Kentucky Wood Expo	Lexington, KY	502.695.3979
September 21	Woodland Owners Short Course	Lexington, KY	859.257.7597
October 1	Fall Webinar Series: Tree Identification	Various Counties	www.ukforestry.org
October 8	Fall Webinar Series: Woodland Management and Certification	Various Counties	www.ukforestry.org
October 22	Fall Webinar Series: Kentucky Waterfalls	Various Counties	www.ukforestry.org
November 5	Fall Webinar Series: Waterfowl Identification	Various Counties	www.ukforestry.org
November 12	Fall Webinar Series: Selling Timber	Various Counties	www.ukforestry.org

NEWS TO USE

Landowners Benefit from Certified Markets

Woodland owners in the region are beginning to take advantage of certified markets through price premiums and increased competition for the purchase of their timber. Timber buyers are traveling further outside their normal procurement zones to get certified timber. Certified timber sales generally have greater interest from buyers that purchase certified timber and pulpwood. This increased interest can aid in an increase in sale value. Price premiums for certified wood are also occurring.

The demand for certified material tends to be, but is not exclusive to areas with pulp and chip markets for paper manufacturers. This is because the paper industry has a strong interest from their clients in securing certified paper. However, there are many sawmills in Kentucky that are certified and are selling certified lumber, staves and other products. The markets are primarily dominated by wood from the Forest Stewardship Council but there is small demand from the American Tree Farm System. There are

limited markets for other certified products manufactured in Kentucky this is especially true for veneer and other products that find their way to the export market particularly to the European Union. However, there are some products such as railroad ties or pallets where there is no interest in certification.

Woodland owners can take advantage of these markets by getting certified through the Center for Forest and Wood Certification's FSC and American Tree Farm group certificates. Visit www.forestcertificationcenter.org or call toll-free 855.579.2690 for more information.



CFWC
Center for Forest & Wood Certification

Forestry Fall Webinar Series

Mark your calendar now for the Forestry Fall Webinar Series starting this October and running through November 12. Webinars will be hosted by participating county extension offices and for the first time woodland owners will be able to tune in from home if they have high-speed internet access. These webinars are a convenient way for you to increase your knowledge without having to travel long distances to attend programs. All webinars will be on Tuesday evenings and last approximately one hour.

Below are the dates and webinars titles:

- October 1: Tree Identification
- October 8: Woodland Management and Certification
- October 22: Kentucky Waterfalls
- November 5: Waterfowl Identification
- November 12: Selling Timber

For more information about the Forestry Fall Webinar Series visit www.ukforestry.org or call 859.257.7597.



Complete the Kentucky Woodlands Magazine Survey!!!!

Please make sure to complete the Kentucky Woodlands Magazine survey included in this issue or online at www.KWMSurvey.org. Survey results will allow us to provide readers with the content they want and need to better care for their woodlands. Thanks in advance for taking the time to share your feedback by completing the survey!

Answers from
KWM Vol. 8 Issue 1

1. d 4. b
2. b 5. c
3. b 6. a



Test Your Knowledge Review

Congratulations to M. Dattilo of Winchester, KY who was randomly chosen from the entries from the last quiz. He will receive a free copy of Identifying Kentucky's Forest Trees.



UNIVERSITY OF KENTUCKY
Forestry Extension Office
Department of Forestry
University of Kentucky
216 Thomas Poe Cooper Bldg.
Lexington, KY 40546-0073

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On-line version at www.ukforestry.org