

MCWOA NEWS

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Oak Regeneration Crew Work By Francis Whalen

Forestry Student—Penn State University
2006 MCWOA Education Award Recipient

This summer I was fortunate enough to have the opportunity to work with Dr. Finley and Dr. Steiner on an oak regeneration study through Penn State. This work included mostly field data collection. This was truly a rewarding experience for me. I was able to see many neat and interesting plants and wildlife in the areas where the study was conducted.

That area ranged from Emporium and St. Marys in the north all the way to Carlisle in the south. This study was focused on oak regeneration; we collected data on species, height, overstory cover, ground cover, and stump sprouting. This data was collected rain or shine so there were a few days where I came home completely soaked. The type of management practices that were done to the sites where we collected data were clearcuts, either single stage or multiple stage, and shelterwood cuts. There were also sites that had deer fences, either woven or electrical.

We saw plenty of deer and turkey along with a few black bears. Some of the most heart pounding encounters were with rattlesnakes. At one particular site I was locating plots, which is a 2-man activity that uses a GPS unit and a metal detector to locate sampling plot centers on a particular site. As my fellow crewmate and I were entering the site through the old landing we came upon a brush pile. As I started to

climb over it, because the plot was only another 75 feet on the other side, I noticed a fairly large snake skin. At this point we decided to back track a little and enter from another direction using a skid trail. Sure enough not even 15 feet into the woods I took a step and heard the distinct rattle of a snake. At this time I looked down at my feet and between them was a huge rattlesnake. It was probably close to six feet long. It was curled up directly between my feet. At this point my fellow crew mate grabbed my shoulder and pulled me back. After a few quick laughs and a lot of sighs of relief we carefully and nervously made our way around the snake and to the first plot.

On the plant side of things, the most interesting specimens I saw were a couple of American chestnut trees that were fairly tall, around 40-45 feet, and over 12 inches in diameter, and which did not show signs of the blight. I also had my first sampling of Indian cucumber, which is a plant that has an edible root that tastes much like a cucumber. There were numerous sites that had Indian pipe on them as well. Indian pipe is an interesting plant as it has no chlorophyll and it must get its nutrients from other plants. The experiences I have gained this past summer will surely help me in the future as I pursue my career in forestry.

Thank you MCWOA.



FALL CHORES—STACKING IT UP SAFETY REMINDER

Woodlot owners can benefit from firewood

Fall: Brisk weather, falling leaves and the urge to work out doors in our woodlots. One activity that sees an increase at this time of year is firewood collection. Whether for your personal use or as a bi-product of your woodlot management process we remind you to use caution and care this fall. Accidents happen and we can reduce their occurrence when we plan ahead and take care of our equipment and ourselves.

Woodlot owners can benefit from firewood production in the following ways:

- Save fuel cost by burning firewood.
- Improve timber quality, species composition, and growth rate by removing undesirable trees for firewood.
- Generate income by selling firewood.

Firewood and Forest Management

Firewood removal can contribute to timber production and other management objectives if the woodlot owner carefully decides when, where, and how to cut that firewood. Prior to a timber harvest can improve access areas, open areas for growth of existing timber, or remove undesirable species. When doing such cuttings take care not to damage or scar your quality timber. Damage of this type can reduce your future value. Cutting after a timber sale will make use of some of the tops or waste trees left by the loggers.

Equipment

The first step in safely cutting fire-

wood is to properly prepare self and equipment for the job. To prepare for the task, utilize the following personal protective equipment:

A hard hat to protect head from falling limbs or branches.

A pair of safety goggles or eye glasses with safety lenses to prevent injury from falling wood chips, twigs, and sawdust.

A good pair of comfortable ear muffs or ear plugs to protect ears from the engine noise when using a gasoline powered chain saw.

A pair of light weight gloves to protect hands from abrasions, splinters, and cuts.

A pair of heavy work boots or shoes with high tops and steel toes.

Clothing which is well-fitted and free of dangling or ragged edges which could become tangled in the saw or drag on branches.

Equipment for cutting firewood falls into two categories—hand tools and power tools. Hand tools consist primarily of saws, axes, wedges, and sledgehammers. The power tool most commonly associated with firewood cutting is the chain saw. However, in recent years, gasoline and hydraulic powered wood splitters are becoming more common. Preparing equipment for safe operation involves making sure you are thoroughly familiar with its operation and it is in top operating condition. Be aware of any inherent hazards associated with the particular piece of equipment.

Following are some things to look for

(Continued on page 4)

The first step in safely cutting firewood is to properly prepare self and equipment

Don's Diary: the Field Trip

By Don Campbell

Because of my job I have not always been able to attend our annual field trips, but since I'm retired now I have no excuses for not attending. This year's trip to the Clear Creek State Forest was so packed with good timber management information that anyone who missed it and wanted to gain knowledge on this topic doesn't know what he or she missed. If you went on the Field Trip four years ago to the same forest you missed out on an extremely good update. Here's what you missed out on. We got to see a timber sale that was marked and sold, ready to be harvested. If you went on the trip four years ago you saw a Shelterwood practice that had been performed on the site 10 years prior to that trip. Shelterwood method is a light moderate cutting where damaged and less valuable trees are removed to put your growth on the best trees in that stand. It also allows for establishing regeneration of shade tolerant and moderately shade tolerant species if done a decade or so prior to the final removal cutting.

Most of the stand will be clearcut with a small twist. The twist is that the Foresters choose to leave large trees standing that are species only occasionally found in the stand to provide a seed source and diversity to the new forest. The other exception was that along the township road they were selectively removing some trees leaving many large trees standing so that the cut would be more pleasing to the passerby. This is done to make the timber harvest more aesthetically pleasing to those who will see the logging practice.

We traveled to a clearcut that was completed a few years ago with the same

practices as described above. To me nothing was objectionable about this clearcut with residual trees periodically scattered around the stand. Both of these stands were fenced in to protect the new growth from Deer. We saw a clearcut beside this stand that wasn't fenced with substandard fire cherry growing on most of it.

The predominate tree types that grow on the stand we walked through are of the Red Oak species; Northern Red Oak, Black Oak, and Scarlet Oak. We got to see how they use fire to regenerate oak in several forest practices around the Forest. To regenerate Oak species I would say controlled burns on select stands around the Clear Creek Forest is an important invaluable tool of the Forester's. They have also found that this helps the blackberry regenerate growth and thus will retard the fern growth on the forest floor.

The last two years I've attended the Forest Landowner Conference held in Northwest Pa. and have relearned a lot about Forest Management plus a lot of new stuff. I might have a degree in Forestry and have practiced quite a bit on wildlife management, aesthetics, bio-diversity, watershed management, etc., but I have had very little to do with evaluating ones timber in his or her woodlot. I have had the fortunate guidance of many state foresters in relearning what I was taught 30 years ago. Thanks to Gary Franks, District Forester and Mark Bodamer, Service Forester for a great tour of the Clear Creek State Forest. I consider the practices they and their predecessors do as A+ Management.



Service Forester's can help you get to know your wood-

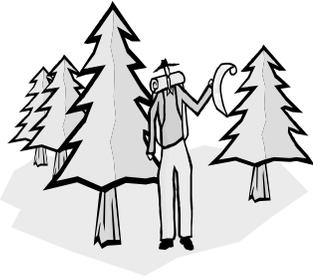
**Who is the
Service Forester
for your area?**

**Mercer/
Lawrence
Counties –**

Mark Bodamer-
DCNR Bureau of
Forestry, 684
Lake Wilhelm
Road, Sandy
Lake, PA 16145

(724) 253-2624

mbodamer@state.
pa.us.



Producing firewood from a woodlot can be an excellent forest management opportunity

FALL CHORE

continued

(Continued from page 2)

with specific pieces of equipment:

Handsaws: Be sure the saw blade is sharp and in good condition. Check all handles to be certain they are firmly attached to the blade.

Axes: Keep blade sharp. Be certain the handle is in good condition, free of cracks and securely attached to the ax head. **Wedges:** Keep wedges properly sharpened. If the head of the wedge becomes mushroomed, grind it smooth before using again.

Sledges: Keep handle in good condition and firmly attached to the head.

Chain saws: Keep chain sharp and properly sharpened. Follow manufacturer's recommendations for service and maintenance.

Wood Splitters: Follow manufacturers' recommendations for service and operation. If gasoline powered, store fuel supply away from work zone.

Safety

Firewood cutting and any chain saw operation is extremely dangerous so it must be done with care. The cost of even a minor accident can more than offset any potential value or saving. Dead trees and "leaners" are particularly hazardous because they can break and fall unexpectedly while being cut. Consider leaving dead snags in the woods for their wildlife value rather than taking the high risk of felling them. Chain saws are the major cause of accidents among professional loggers (who presumably understand the risks and know how to operate them safely). Firewood cut-

ters should take appropriate precautions. The chain saw operating manual should be thoroughly read and understood before operating the saw. Learn safe techniques, use well maintained equipment, wear appropriate clothing and protective gear, and avoid excessive fatigue.

Plan not only the fall direction of your tree but your escape path. Be sure the area you will use to move away from the cut stump is clear so that you do not stumble and fall.

If others are cutting firewood on your property, require them to work safely. Provide separation between cutters so they do not endanger each other, but do not allow anyone to work alone. Do you carry adequate liability insurance?

Producing firewood from a woodlot can be an excellent forest management opportunity. Properly marked and administered, firewood cutting can produce immediate results while increasing the long-term value of the woodlot. Cutting the wrong tree for firewood is as senseless as burning the furniture those trees could have produced. Ask a forester how firewood cutting could fit into your management plan and improve your woodlot.

For a detail guide on chainsaw maintenance visit www.stihl.com or the direct link

<http://www.stihllibrary.com/pdf/SharpAdvice110606.pdf>

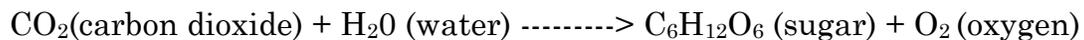
Thanks to the Stihl Company for their safety program this past May.

TREE-WHIZ FOR KIDZ LEARNING PAGE



A Tree From the Air? Photosynthesis

So where does the food come from that the tree uses to grow? The answer is simple yet very complex - it comes from the air. Trees like all plants carry on the process of photosynthesis. Photosynthesis is the process by which plants utilize the energy from the sun to make sugar from carbon dioxide in the air. The next time you look at a tree think about the fact that what you see was once nothing but a bunch of carbon dioxide gas. The general equation for photosynthesis is pretty simple:



This simple equation reveals much about a plant. First its obvious they need sunlight to survive. Different trees are adapted to grow under different levels of light.

There are two forms of light that a tree can receive. The first is direct sunlight. This is where sun is shining directly on the tree leaves. The second is diffuse sunlight. This is indirect sunlight that reaches leaves by reflection or passing through the canopy. An easy way to understand diffuse sunlight is to cover a flashlight with a paper towel and turn it on. The light that goes through the paper towel is similar to indirect sunlight that passes through the canopy to reach smaller trees.

An interesting experiment you could perform would be to grow several species of tree at different light levels and see which species grows the fastest.

Some trees require certain levels of light. Trees can be classified as follows:

1. Tolerant - means a tree can survive in low levels of light, or in the shade
2. Intermediate - means that the tree can survive in low levels and high levels
3. Intolerant - means that the tree needs high levels of light to survive, no shade

Another fact about trees evident from the equation is that they require carbon dioxide (CO₂) to grow. You may have heard on television or read in the newspaper about rising CO₂ levels in the earth's atmosphere. Scientists do not agree on what the increasing CO₂ will do to the earth's climate. Some believe the earth will

warm, others believe there will be little effect. For trees however most scientists agree that increasing CO₂ will allow them to grow faster. In a way the elevated CO₂ acts like fertilizer

and as a result the trees grow faster.

One final observation about the photosynthesis equation is that oxygen is produced as a by-product. This is a great byproduct since animals (including you) need oxygen to survive. The oxygen is produced when a water molecule is split during a specific chemical reaction.

Although the summary equation for photosynthesis is rather simple the specific reactions are very complex.

Test your knowledge

1. What natural reaction occurs with sunlight in trees?
2. What is the result of photosynthesis?
3. What are two forms of light a tree can receive?
4. Match Light level definitions for tree survival
 ___ Tolerant ___ Intermediate ___ Intolerant

- (a) high levels of light to survive, no shade
- (b) low levels and high levels
- (c) low levels of light, or in the shade

Answer key
 1. Photosynthesis—
 2. Sugar and oxygen
 3. Direct and
 4. Tolerant....c Intermediate....b Intolerant.....a





"Go Native" with these basics



1. Protect native plant communities and minimize habitat destruction

The easiest, least expensive, and best way to conserve Pennsylvania's plant heritage is to protect existing native plant communities from further disturbance. If disturbance is necessary, strive for minimum habitat destruction. In some cases ecological restoration may be necessary, which can include planting native species, removing invasive introduced species, controlling erosion and loosening soil compaction.

2. Landscape with native plants

Native plant communities have been destroyed in many areas and therefore landscaping is required. Well-chosen native plants perform well in these landscapes. The Department of Conservation and Natural Resources (DCNR)-Bureau of Forestry (BOF) recommends avoiding rare, endangered, and threatened plants and instead choosing native plant species which grow commonly throughout the state. These hardy and adaptable plants do well in a wide variety of conditions and have a much better chance of success in gardens.

3. Learn more about native plants

Learn what plants are native in your area. The Resources Page lists just a few of the resources for this region, but there are many more. Many field guides can get you started.

4. Buy nursery-propagated native plants

Most retail nurseries and mail-order catalogs now offer native plants. The more consumers request native plants, the more this supply will grow. If you want guaranteed ornamental characteristics, cultivars (named varieties) are available in some cases; for instance, New England Aster has a cultivar named 'Purple Dome', which was selected for shorter height and showier flowers. Cultivars should be predictable in attributes like height, color, blooming period, or absence of seed pods/thorns--qualities many gardeners want. If your goal is genetic diversity, however, ask for straight species, not cultivars, grown from local seed sources. Plants grown from seed have much more variety than cloned cultivars.

5. Do not remove native plants from the wild

Taking native plants from the wild depletes native populations. Also, many wild-collected plants do not survive transplanting. Prevent wild-collecting of plants by making sure that plants you buy are propagated at a nursery, or by starting plants yourself from a local seed supply (Collect seed only with the property owner's permission). Ask the DCNR-BOF for a list of native plant and seed sources in Pennsylvania.

The Forester's Forum

By Mark Bodamer, Forester DCNR, Bureau of Forestry

In past articles I've addressed measuring your woodlot for board foot volume and managing for firewood. However, I have not addressed how to estimate the number of cords of firewood that you currently have available in your woodlot or in a specific stand within your woodlot. The following information and tally sheet will help you determine that volume estimate. Have fun!

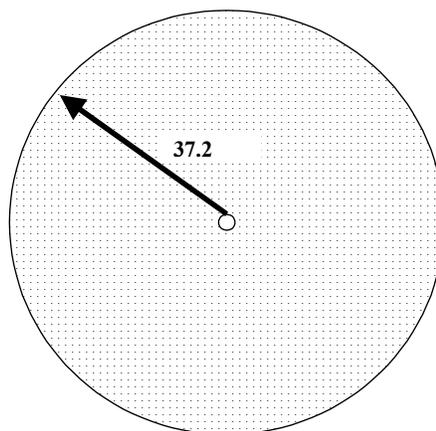
How much firewood do you have?

Use sample plots to determine the number and volume of the trees to be used for firewood.

FOR STANDING TIMBER

Measuring the Plot

The radius of a 1/10 acre plot is 37.2 feet



Tie a ribbon around a tree in the plot center and count all the trees that are equal to or less than 37.2 feet away.

Measuring the Tree

If you do not have a diameter tape, use a tape measure to determine the diameter of each tree at breast height. To do this measure the circumference, then divide by 3.14. Next estimate the number of 8 foot logs in each tree to a 3 inch top. Record these numbers on the marking sheet.

When you are finished with the plot, multiply the number of trees times the number of cords in each tree (This is the decimal number in each block on the worksheet), add them up and the resulting answer will be the number of cords contained within that 1/10 acre plot. To estimate the number of cords per acre, multiply the plot volume by 10.

FOR CUT & STACKED WOOD

To determine the number of cords you have in a stack of firewood, use this formula:

$$\text{NUMBER OF CORDS} = \frac{\text{Height (feet)} \times \text{Length (feet)} \times \text{Width (feet)}}{128 \text{ Cubic feet per cord}}$$

The Forester's Forum



CORDWOOD MARKING SHEET WITH CORDS PER TREE

Woodland owner _____ Date _____
 Grand total of # trees marked _____ Grand Total volume _____ Cords

DBH inches	Number of 8 foot bolts to a 3" diameter							
	1	2	3	4	5	6	7	8
4	.007	.011						
5	.011	.019	.022					
6	.017	.028	.04	.047				
7	.023	.038	.053	.068	.076			
8	.031	.05	.068	.087	.106	.116		
9	.04	.065	.088	.109	.13	.153	.17	
10	.049	.082	.111	.133	.16	.188	.211	
11	.06	.10	.137	.165	.19	.221	.25	.27
12	.07	.121	.165	.198	.225	.26	.3	.33
13	.082	.143	.197	.236	.268	.305	.35	.42
14	.095	.167	.228	.273	.311	.353	.4	.47
16	.122	.220	.30	.367	.42	.47	.53	.59

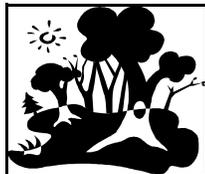
UP COMING EVENTS

SEPTEMBER 16—Munnell Run Farm Days—
Mercer Come visit the MCWOA information
tent. Also Music, Crafts and Displays.

SEPTEMBER 22—Woodland Association Annual
Workshop @ Penn State
Board of Directors are invited to share informa-
tion and ideas with other Associations. Round
table discussions and presentations.

OCTOBER 20, — Annual Dinner—Grantham's
Landing Restaurant 6 pm
Chinese Auction for Education Fund
Program: *Invasive Plants covering the Woodlot
and your yard*
Sustainable Forestry Initiative—Distribution of
Landowner information packet

NOVEMBER 15—Deadline for News articles



McKeever Environmental Center

Sandy Lake, PA
phone: 724/376-1000
fax: 724/376-8235
info@mckeever.org

5th Annual Nature Art Show
September 21-23, 2007

Public Forum - Our Ecological Footprint
Tuesday, September 25th @ 7:00 PM

Nature Photography Workshop
Saturday, October 13th 9:00 AM - 5 PM

EDUCATION OPORTUNITIES

These workshops are geared for financial advisors, such as attor-
neys, accountants, financial planners,
foresters, tax preparers, and small business owners. This is a one-
day course is designed to help your
clients maximize their individual goals. **Interested forest land-
owners are also invited to attend.**

Timber Taxation

Clarion, October 30

Tunkhannock, November 1

Lamar, November 5

Record keeping, Cost basis, Passive losses, Operating and
management expenses, Capital gains on timber sales, Depre-
ciation methods, Cost sharing expenses, Reforestation , ex-
penses, Casualty losses, Conservation easements, Estate plan-
ning, Pennsylvania inheritance taxes

Forest Finance

Mercer, November 7

State College, November 13

Evaluating financial returns from, forestry investments, Opti-
mal harvest timing, Forest valuation & appraisal, Alternative
income opportunities

FEE

\$95 per person for either workshop (includes breaks, lunch,
course materials).

Contact : Mercer County Extension Office for more details and
reservations

ON THE WEB

Timber Report
www.sfr.psu.edu/TMR

County Extension Office
mercercounty.extension.psu.edu

PA Trees
www.patrees.org

Bureau of Forestry
www.dcnr.state.pa.us/forestry

FOR THE NOVICE
BASIC ID KEYS

POPLAR



yellow-poplar

Magnoliaceae *Liriodendron tulipifera* L.

Leaf: Alternate, simple, palmately veined, orbicular, 4-lobed with an entire margin, 4 to 8 inches long, notched to flat top. Somewhat shaped like a tulip, light green to green.

Flower: Monoecious; perfect, showy, resembling a tulip, but high in the tree, 2 1/2 inches long, with yellow-green petals, appearing late spring to early summer.

Fruit: An oblong (cone-like) aggregate of samaras (2 inches long), deciduous at maturity; each is 1-winged, 1 1/2 inches long, and curved upwards at seed cavity maturing August to October and disseminating through late fall and winter; base whorls of samaras persist on fruit into following spring and resemble wooden flowers high in the tree.

Twig: Red-brown in color, often with a shiny appearance or a waxy bloom. Stipules are large and encircle the twig; buds are elongated and valvate, resembling a "duck bill". Twigs have a sweet, spicy odor when broken.

Bark: Light gray-green and smooth when young, later developing flat-topped ridges and conspicuous white colored furrows in diamond shaped patterns. On older trees sapsucker holes are common.

Form: In a forest, a large tree with a long, straight limb-free bole very often reaching over 100 feet tall. Open-grown trees have a pyramidal crown when young, becoming oval in shape with time

bigtooth aspen

Salicaceae *Populus grandidentata* Michx.

Leaf: Alternate, simple, orbicular to ovate, 3 to 4 inches long, pinnately veined, large blunt teeth, petiole flattened vertically, green above and paler below.

Flower: Dioecious; males and females occur on hanging, 2 to 3 inch long fuzzy catkins, appearing before the leaves in early spring.

Fruit: Cottony seeds, 1/4 inch long, borne in small dehiscent capsules that occur along catkins, maturing late spring to early summer.

Twig: Medium-textured, gray-brown in color; buds are ovate, pointed, red-brown to gray with some pubescence; leaf scars raised and heart-shaped. When chewed, the twig has a bitter, aspirin taste.

Bark: Thin, gray, olive-green to milky green and smooth on young stems; later gray-brown, ridged with diamond shaped lenticels and splits forming.

Form: A medium sized tree with an irregular, thin crown and a straight bole.

quaking aspen

Salicaceae *Populus tremuloides* Michx

Leaf: Alternate, simple, 1 to 3 inches long, green above and paler below, heart-shaped to nearly round with a fine toothed margin, petiole is flattened.

Flower: Dioecious; male and female hanging catkins 1 to 3 inches long.

Fruit: Catkin (2 to 4 inches long), with attached light green capsules which contain many small hairy seeds.

Twig: Slender, glabrous, reddish brown often with a gray, waxy film; buds conical, reddish brown, terminal bud 1/4 inch long, may be slightly resinous.

Bark: At first smooth, creamy yellowish-white to very light green; later developing thick furrows and becoming dark, especially near the base.

Form: Small (30 to 40 feet tall) upright tree, which often occurs in thickets.



Mercer County Woodland Owners Association

Attn: Pat Campbell, Sec
778 Sunol Road
Cochranton, PA 16314

We're on the web
www.mcwoa.org



MCWOA

ON THE WEB

Timber Report
www.sfr.psu.edu/TMR

County Extension Office
mercercounty.extension.psu.edu

PA Trees
www.patrees.org

Bureau of Forestry
www.dcnr.state.pa.us/forestry

GO NATIVE (Continued from page 7)

6. Practice responsible landscaping techniques

The first rule of responsible landscaping is to plant the right plants in the right environment: never introduce invasive plants to your landscape that will aggressively spread off your property and invade native plant communities. They can drastically alter ecosystems and give you and your neighbors maintenance headaches for years to come. Ask the DCNR-BOF for the brochure "Invasive Plants in Pennsylvania."

When landscaping with native plants it is important to choose plants that will grow well at the site: wet or dry, shade or sun, acid or neutral soil. A good trick is to notice which native plants are thriving nearby, and to use those clues to guide plant selection. Other information can be found from plant nurseries, catalogs, books, or the Internet.

For soil fertility, compost and mulch of leaves or grass clippings provide slow release nutrients. Chemical fertilizers often provide too many nutrients too quickly for native plants, and this flush of nutrients gives weeds a competitive edge. Proper site preparation begins with a soil test before applying fertilizer. Try organic pest control. Keep the soil covered to prevent weeds. Remove invasive plants nearby. Take out severely diseased plants, or ones with insect infestations. Many native plants attract beneficial insects which help control pests, so try creating habitat for "good bugs."

MCWOA REPRESENTATIVES

Officers: President Robert McGhee
Vice Pres Alan James
Sec/Tres Pat Campbell (814)-425-2700
Email: MCWOA@yahoo.com

Board Members: Albert Law John Scheafnocker Donald Campbell
Patrick Kelly Dane Mitchell

Advisors: DCNR, Bureau Forestry Mark Bodamer (724)-253-3634
Mercer County Extension Office Gary Micsky (724) 662-3141

MCWOA MEMBERSHIPS 2007

TYPE	Dues	Description
Lifetime	\$200	Individual Lifetime, Woodland owner, voting member
Family	\$15	Immediate household, Woodland owner, 1 voting member
Individual	\$10	Individual, Woodland owner, voting member
Associate	\$5	Individual, Non-Woodland owner, non-voting member
Junior	\$2	Individual age 16 yrs and younger, non-voting member
Sponsor	\$10	Group or Business interested in Woodland Mgmt, non-voting

ALL MEMBERS receive newsletter, mailings, and MCWOA event admissions.

MCWOA NEWS Letters will be discontinued if memberships are not current.