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Spring 2007

NEW YORK FOREST OWNERS ASSOCIATION

Allegheny Foothills Chapter Newsletter

Chairman's Corner

Spring is here again! It is a busy time in my woods and I hope it is in yours. I'm beginning to put a pond in order that I had restored last year. The seminar at Dan Anderson's is helping me a lot. My new gas well has been producing since March. The producer is beginning his cleanup and will soon be seeding part of it as a wildlife food plot. There appears to continue to be leasing and drilling in the Allegheny Foothills Chapter area.

I have also contracted with a timber consultant and am beginning to mark out a small timber sale. We shall mark the white ash a bit heavy and only the normal amount of the other hardwoods. This is hoped to be a defense against the coming emerald ash borer.

If you would like information on any of the above topics, please contact me or any of our officers, as we have several active members who have considerable knowledge about these topics. There are also several Master Forest Owners (MFO's) in our area who would be glad to come and discuss your plans for your woodlot. They can lead you in the direction of expertise on about any subject of concern in your forest acreage.

NYFOA and the Allegheny Foothills Chapter are always in need of new members. In addition we need current members to get more active on the various committees. Please consider increasing your participation.

~Dick Patton

Forest Threats Walk

Join the Chapter at the Pfeiffer Nature Center on June 23rd at 10 AM for an update on threats to our forests by invasive species. The update on the most recent invasive species will be provided by representatives from FORECON, Inc. This will be followed by a walk to view the historic American chestnut cabin and the old growth forest.

Pfeiffer Nature Center is located on Lillibridge Road in the Town of Portville, Cattaraugus County. To get there from Rt 417, go to the end of Maple Street, turn left on Lillibridge Road. The Center is located 4.0 miles up Lillibridge Road. The last 1/2 mile is a dirt road and winds through the woods. There is a sign for the Pfeiffer Nature Center on the right next to the parking lot.

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Chapter Board of Directors:

Annual Picnic

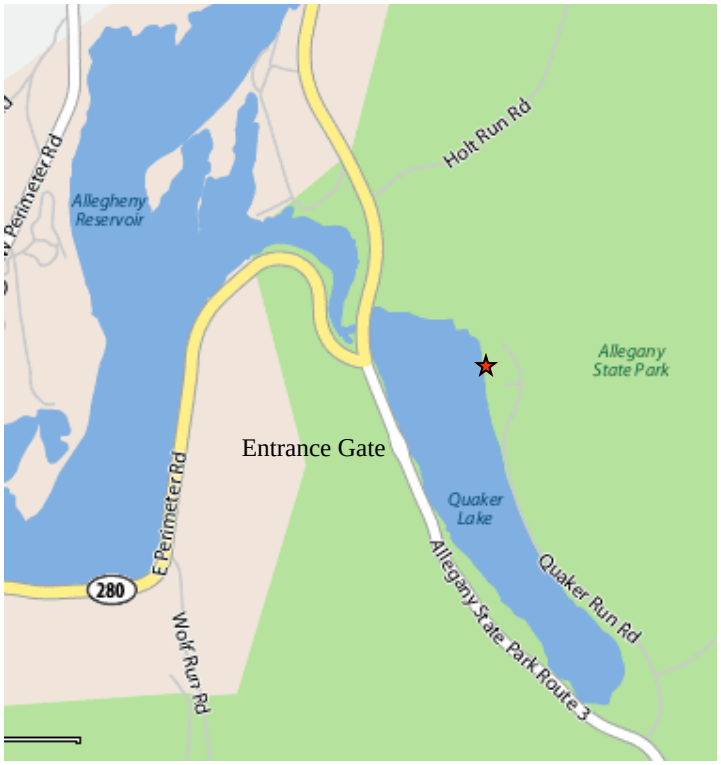
Another year has passed swiftly by and it's time once again for the Annual Picnic and election of Officers. Come join the fun and excitement on July 14, 2007 from 11 AM to 2 PM in Allegany State Park, Quaker Area beach.

According to the Chapter's bylaws, any two members in good standing may nominate any other member in good standing for any of the elected officer positions at any time prior to the balloting at the annual meeting. All officer positions (Chairperson, Vice-chairperson, Secretary and Treasurer) are up for election this year.

Bring a disk to pass, meat to grill and table settings. Grills and drinks will be provided.

To get to the Quaker Lake beach area, take I-86 to exit 18, turn south on Route 280 to ASP route 3, turn right on Quaker Run Road.

The park charges an entrance fee after 9 AM.



Welcome New Members: William Arnold, Amherst; James Barr, Arkport; Dolan Family, Orchard Park; Kathleen and William Giardini, Allegany; and Robert Ruppert, East Aurora.

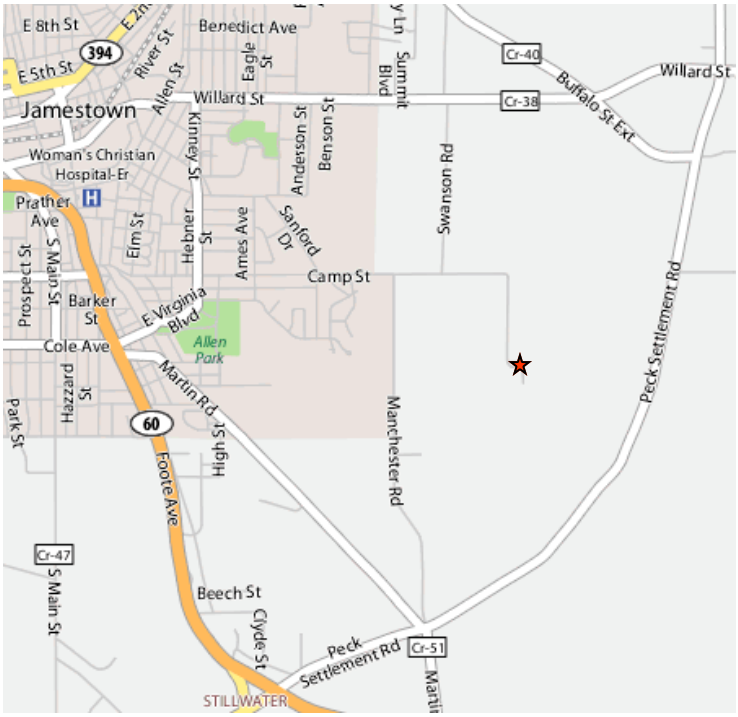
Forest Management on Small Acres

Is it possible to practice forestry on less than 10 acres? We will have lots of evidence to help with the answer at the woods walk to be held Saturday, August 18, at the home of Bruce and JoAnn Robinson. The woodlot is behind their home at 1894 Camp Street Extension in Jamestown. We will begin at 10 AM. Bring a lunch and plan to spend time before and/or after.

We will explore forest structure, especially in immature and seedling/sapling stands. Learn some easy techniques that will help in the management of some problems, such as deer browsing, beech brush and lack of quality wildlife food and cover. Bird sightings are objectives for this property, with nesting, feeding and escape habitat designed to enhance viewing.

Added bonuses will include ponds for wildlife management, and some thoughts on trails. Over the past 35 years, this property changed from a single tree landscape in the midst of a hay field to an arboretum of more than 80 species. This is Bruce's horticultural slum, where many trees began as damaged or rejected stock.

The woods walk will be led by Bruce, who has practiced forestry in the area for 37 years. Learn to use the tools he doesn't have to bend over to use, and how to incorporate those things beyond control as part of 'planned management'.



Watersheds:

What Are They and Why Are They Important– Part 2 by Kim Sherwood

Introduction

In the last issue, I explained how several upland watershed factors influence water quantity and quality. Now I will focus on the near-stream environment. As with the last issue, although these factors will be discussed individually, they interact with each other and the upland characteristics to affect watershed response. Through this article, I'll attempt to tie all this information together and offer some challenges and opportunities for the future.

Stream Channels

Stream channels are differentiated by flow regime, position in the watershed, bed and bank characteristics, and size. Furthermore, NYS designates streams or stream segments by beneficial uses (e.g. drinking water, primary contact recreation, trout habitat, etc.). It can get confusing. Anyone who's spent time in the field knows that stream channels come in many sizes and configurations, but maybe you haven't considered how those stream channels relate to each other and how activities in one channel type can influence stream channels downstream. Flow regime designations are as follows:

Ephemeral – Streams that only flow in direct response to precipitation and whose stream channel is at all times above the water table.

Intermittent – Any nonpermanent flowing drainage feature having a definable channel and evidence of scour and deposition. This includes what are sometimes referred to as ephemeral streams if they meet the two criteria.

Perennial – Streams that flow continuously.

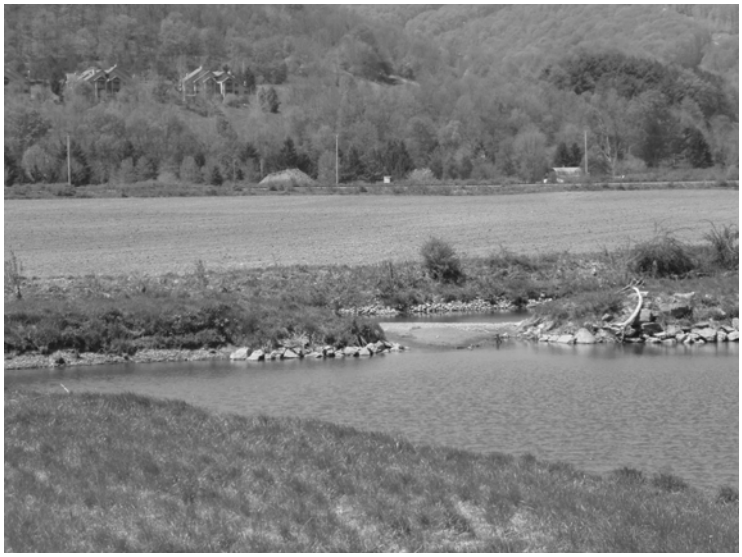
By position on the landscape, stream channels can generally be divided and characterized as discussed below.

Headwater Channels – These are the smallest stream channels, which are often in the steepest parts of the watersheds. They may be ephemeral, intermittent, or perennial. These channels often originate high on the slopes where timber harvest activities often occur. More and more, people are building homes in these locations because they can offer scenic views. Headwater channels tend to be relatively straight, narrow, and steep, giving them sufficient energy to erode their bed and banks if they become vulnerable. Bed and bank instability are most often caused by physical disturbance, loss of soil-binding root masses, or increased streamflows.

Headwater stream in Great Valley

Tributaries – As smaller streams flow downhill, they connect with "receiving waters" or tributaries that get progressively bigger. Tributaries are generally intermittent or perennial. Often, but not always, they have moderate-to-wide valley bottoms. Historically many of these streams migrated (meandered) across their valley floors over time, allowing some stream energy to be dissipated. Energy was further reduced because the slope of the stream (rise:run) was decreased by the additional length of stream.

Because tributaries typically flow through the mid-slopes and lower valley bottom lands, land uses may include timber harvest, crop and livestock production, rural residential, oil and gas / minerals production, etc. Although roads may be present



Great Valley Creek in the Town of Ellicottville

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around headwater channels, they are more common around tributary streams. In fact, stream crossing structures are very common across tributary streams. Bridges and culverts may impose hydraulic changes to the stream, and their capacity is influenced by dynamics associated with their watershed areas.

Tributary streams are generally of moderate gradient, able to transport some sediment while larger materials may drop out. Erosion and deposition are both natural processes and part of natural stream dynamics. If the sediment load is in relative balance with streamflows, there is theoretically no/little net gain or loss over time, even though the stream may change position. In many of our stream systems, sediment loads have increased. Excess sediment is often unable to be transported by the available streamflow; thus it is deposited within the stream channel. These deposition zones can alter the direction of flow and cause additional bank erosion. Thus begins an accelerated erosional process that can overwhelm the ability of the stream to transport sediment.

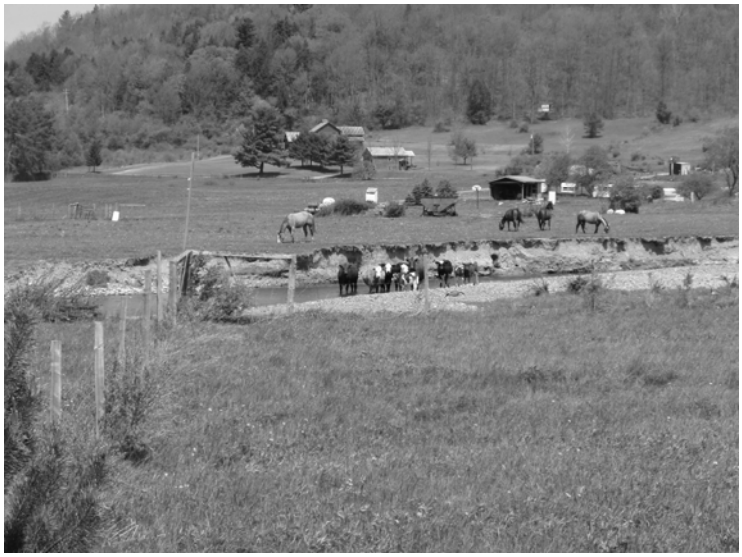
Mainstem Channels – Mainstem channels are the principal channels of a drainage system into which tributaries flow. Although their average slopes are less than their contributing tributaries, everything else about them is progressively larger. Their valley bottoms are often substantially wider than those associated with the tributaries. Their meanders across their valley bottoms often were as well. Because of these characteristics, sediment is often deposited in these streams, like their tributary counterparts. The propensity for accelerated bed and bank erosion, as with tributary streams, is increased with additional water, energy, and sediment generated from within the watershed.

Oftentimes, villages or cities are located near mainstem channels. Rivers played a historic role in many municipalities' origin. They powered mills, served as 'open sewers', were often centers of commerce, and in some locations may have provided log transport, to name a few uses. Many tributary and mainstem streams were altered to suit intended uses and some lasting legacies of that alteration can still be observed today. This idea will be revisited later in the article.

Riparian Function

The riparian zone refers to the vegetated interface between a waterbody and the upland, drier area. In general, the riparian zone generally varies in proportion to stream size. In some cases, the riparian zone may occupy the entire valley floor! Although they occupy a small percentage of the watershed, riparian zones are tremendously important to the health and function of the stream. Vegetation can provide resistance to streamflows, absorbing some stream energy. Root masses of riparian vegetation help stabilize stream banks by binding soils together. This function is very important on streams of all sizes. It can substantially limit erosion of headwater streams and the loss of cropland along the tributaries

A well vegetated riparian zone along Great Valley Creek



Non existent riparian zone with livestock causing severe bank erosion

and mainstems of the lower valleys. The riparian zone shades the stream and provides habitat and nutrients for fish and aquatic organism. As trees or limbs fall into the stream, they can provide habitat for those same organisms. Sediment delivery to streams, which is noted by many water resource professionals as the primary pollutant in WNY streams, can be reduced or filtered by effective riparian buffers. Other pollutants may be held in the soils, preventing delivery to the waterbody. And of course, riparian zones are especially important for wildlife, providing access to water, food, "edge habitat", and travel corridors.

Streams and riparian zones are not always highly regarded by landowners and municipalities. Property owners have lost land due to stream channel and riparian zone changes over time. Fallen trees can be problematic for highway crews charged with making sure that stream crossing structures are free of obstacles. Despite our understanding of the importance of riparian zones, their management in light of other objectives remains a challenge.

Floodplain Function

A floodplain is defined by the Natural Resource Conservation Service as "land built of sediment that is regularly covered with water as a result of the flooding of a nearby stream". Bankfull flows are those which fully occupy the stream channel just before the flow goes over the bank. Bankfull flow, from data compiled across the country, historically happened on average every 1.5 to 2 years. The combination of these two concepts suggests that overbank flooding used to be a fairly common occurrence.

One way streams dissipate energy is by flooding. Instead of confining all the streamflow between the banks, it is spread across the floodplain. This slows the flow and reduces the erosive force on the channel. Flooding is a natural process that recharges aquifers and slowly releases subsurface water back to the stream later in the year when moisture may not be as prevalent.

Many homes, businesses, and communities have been built on the floodplains of moderate-large streams. Due to the multiple ways that more water is added to our stream systems and just as many ways streams that have been 'cleaned' and straightened over the years, it is not uncommon to have streams that cannot frequently access their floodplain. This can result in relatively small magnitude events causing substantial erosion of the stream bed and banks. If overbank flows happen on only the largest magnitude streamflow events, the potential for problems is often greater because people have been lulled into believing they are "safe" from flooding. A good rule of thumb is that floodplains will flood. It is not a question of "if", but "when".

Structures built in the floodplain limit the flow of a stream during flood stage. In effect, they restrict the area the stream can occupy, thus increasing the velocity of the stream, and the potential for damage. This means that there is significant risk of damage to the structures, which translates to personal and economic loss, and there is also ecologic loss in terms of stream function.

Flood Control Walls on the Allegany River in Salamanca

According to a study recently released by the Environmental Protection Agency, more than half of the streams in the United States are polluted, with the worst conditions found in the eastern third of the country.

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Watershed Plumbing

I coined this term to help people visualize the numerous ways that stream dynamics have been changed over the centuries. A few "plumbing" changes I want to highlight that may have a large affect on watershed response are roads, and ditching and draining, both on private lands and by municipalities.

A large percentage of our road systems are in the stream bottoms, where perhaps the historic trails and wagon roads were initially located. These stream-adjacent roads often occupy the riparian zones and floodplains, interrupting those two important functions, and preventing streams from meandering. Many streams have been straightened, either to "get them out of the way" for farming or other land uses, or to accommodate the roads. Straightening streams reduces the length, thereby increasing the slope, which in turn increases the energy. This can erode vulnerable streambanks and cause additional flooding damage to the roads.

Often, private landowners drain their excess water directly to a stream, or into roadside ditches which are often routed to the streams. In addition to converting subsurface flow to surface flow, this can add a substantial volume of water and pollutants to the streams—and a subsequent affect on watershed response. In heavy precipitation events, this volume of water is sufficient to erode ditches, requiring municipalities to invest in repairs. Treatments such as rock lining of ditches and other means of reducing the volume or energy of ditch water can reduce maintenance costs of ditches and adverse effects on receiving waters.

Cumulative Effects and Summary

A watershed must process all the water and pollutants generated within its boundaries. Cumulative watershed effects are the aggregated effect of numerous incremental changes, both natural and human-caused. Viewed individually, these effects may seem inconsequential, but when combined with all others, they can be significant. At the watershed scale, this can affect watershed response by adding more water and pollutants, more quickly to the stream systems. Alternatively, these effects can also reduce groundwater storage and lead to longer and more severe drought periods.

In these articles, I have discussed some of the 'links-in-the-chain' that affect watershed response. Looking at and trying to solve problems on a watershed basis is relatively new in this part of the country, and made especially challenging by the large percentage of private lands. Private lands can also contribute to adverse effects to downstream landowners and the public through flooding and degradation of water quality. An ongoing challenge will be to encourage cooperation for good land stewardship without unduly restricting private landowners' rights and municipalities' budgets.

From a beneficial use standpoint, it is important to remember that on a watershed basis, all streams are linked.

NYS Guidelines for Timber Harvest has recommendations to protect stream channels. Those recommendations include practices to limit soil disturbance, prevent erosion, maintain stream and riparian functions, and generally make timber harvest a sustainable land use. It can be found on the internet at: http://www.dec.state.ny.us/website/dlf/privland/privassist/bmp.html , or at your regional NYS Department of Environmental Conservation office.

An excellent resource with more information on this topics is Stream Processes – A Guide to Living In Harmony With Streams. The guide was published in August 2006 by the Chemung County Soil & Water Conservation District; it may be available at your local District office.

Enjoying a cool stream on a hot summer day

Ancient Oak Discovered

A gravel pit in Brownstown, IN has dug up an ancient oak tree estimated to be 6,000 years old. Associate professor of biology at Hillsdale College, Anthony Swinehart, has estimated the tree was probably 300 years old when it as uprooted and deposited by a glacier during the last ice age. Much of the root crown and bark were still intact when found. Carbon dating test have been conducted to substantiate its age.

A mill in Indiana is treating the chocolate colored wood. Some of it will be shaved into veneer while other parts will spend weeks drying in the kiln.

Ash Borer Quarantine Expanded

The US Department of Agriculture's Animal and Plant Health Inspection Service has expanded the quarantine on Emerald Ash Borer. The quarantine now includes the entire state of Illinois, Indiana and Ohio as well as the lower peninsula of Michigan.

The new federal order restricts the interstate movement of ash nursery stock, green lumber, any ash material including stumps, roots or branches, composted and uncomposted wood chips and all hardwood firewood that originate with the quarantined area.

To date, USDA has spent more than $100 million on research, eradication and reforestation efforts. It is estimated that if not contained, EAB has the potential to cost $7 billion over the next 25 years to remove and replace dying ash trees.

Invasive Species Group

On Wednesday 5/2/07, about 35 people met to discuss the formation of a Western New York regional PRISM, to join seven others across the state. The overall program for invasive species management will be coordinated by NYS Department of Environmental Conservation. The intent is that each of the PRISMs would be tailored for their respective region. Paul Fuhrmann of Ecology & Environment (a global consulting firm based in Lancaster NY) led the session. He invited anyone, regardless of background or education to be come involved and help shape the makeup and focus of WNY's PRISM. A large percentage of attendees were from the various land management agencies—DEC, Parks, etc . The lack of citizens and local government officials was noted.

Invasive species are an enormous threat to virtually all economic sectors of NY and this effort needs participation across all walks of life. Here in WNY, agriculture, timber, fisheries, recreation, at all scales are vulnerable or experiencing problems right now. The situation WILL get worse.

The good news about this is that a funding stream has already been established and funding WILL be available for many types of projects. The administrators recognize this isn't a finite or short-term situation. Already funding blocks of 3-5 years have been established and the expectation is that will continue. The implication is that a WNY PRISM could shape and implement a program to address the dismal economic and environmental consequences of invasive species infestations. A MAJOR focus would be early detection and control / eradication.

Your interest, experience, and background can provide something useful to this effort. Invasive species will affect everyone in our area. Therefore you need not be a scientist or specialist of any kind to get involved and help keep our region viable. The group agreed that the PRISM should try to utilize electronic communication to the largest extent practical .

Although Paul is not the coordinator, he has agreed to be the main contact and point-person for the time being. He can be reached at: pfuhrmann@ene.com or 716-684-8060. Please consider investing your time and talent in the WNY PRISM.

Garlic Mustard, *Alliaria petiolata*, is an aggressive invasive weed of gardens, fields and wood lots. A prolific seeder, this biannual plant is hard to eradicate. Eight States have it on their invasive species list.

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Deadline for article submission for the next issue is August 15, 2007

UPCOMING EVENTS:

JUNE 23, INVASIVE SPECIES WOODS WALK, PORTVILLE

JULY 14, ANNUAL PICNIC, ALLEGANY STATE PARK

AUGUST 18, SMALL ACRES WOODS WALK, JAMESTOWN

Cleaner Outdoor Wood Heaters

In an agreement announced at the end of January, the federal EPA and 10 manufacturers of outdoor wood heaters have developed a partnership to make drastically less polluting outdoor heaters by Spring 2007.

Each of the manufactures have agreed to begin offering models of wood boilers or furnaces that would reduce emissions by 70% compared with current models. The ten manufactures produce 80% of heater models that have become popular in recent years. These heaters have been the subject of many complaints about excessive emissions of smoke and particulates.

To meet the new standards, the new models will only be allowed to emit a maximum of 0.6 pounds of particle pollution per million BTUs of heat input. Testing by an accredited third party is required to verify the units meet the new standards.

Manufacturers taking part in the agreement include: Aqua-Term, Black Bear/Clean Wood Heat, Burns Best, Central Boiler, Hardy Manufacturing, Heatmor, Mahoning Outdoor Furnace, Pro-Fab Industries, Woodmaster/Northwest Manufacturing and Sequoyah Paradise.

Article provided by Forestry Notes, published monthly as a joint project of the National Association of Conservation Districts, USDA Forest Service and the National Association of Service Foresters.
Forestry Notes can be found at: http://forestry.nacdnet.org/forestrynotes

"The art of living lies less in eliminating our troubles than in growing with them." ~ Bernard Baruch

Editor's Comments

I would like to say a big THANK YOU to Bruce Caughel for donating $200 to keep the Campership Program alive. Unfortunately there wasn't enough money in the fund to sponsor any campers. Over the last 5 years, through the generous support of our members and others buying Chainsaw raffle tickets, the chapter has sent 8 campers to experience a week long, fun-filled learning adventure at the DEC camp in Rushford New York.

Donations can be sent to Tony Pingitore, AFC treasurer at 6237 Route 380, Sinclairville, NY 14782, please write "Camp Fund" on the memo line of your check. If any member would like to organize a fund-raiser to help add to the campership fund, please contact Mark Kurtis at 716-945-6012.

Have an wonderful spring, get out onto your land and enjoy all the bounty that nature provides.

The *Allegany Foothill Chapter Newsletter* is published for members of the Allegany Foothills Chapter of the New York Forest Owners Association (NYFOA) and is published 4 times per year. NYFOA was founded in 1963 and is organized to encourage the wise management of private woodland resources in New York State by promoting, protecting, representing and serving the interest of woodland owners. The Allegany Foothills Chapter was founded in 1989 and encompasses Allegany, Cattaraugus and Chautauqua Counties.

Membership is open to anyone interested in understanding how to manage a woodlot. For information on becoming a NYFOA member, contact Liana Gooding at (800) 836-3566. Annual membership is $25 for individuals and $30 for families and includes: subscription to this wonderful newsletter; the bi-monthly NYFOA statewide publication, The New York Forest Owner; attendance at Chapter meetings; and at two statewide meetings. For more information visit www.nyfoa.org