



# TRAILWORKER

News, information & resources for our trail volunteers

June 2012



## TRAIL UNIVERSITY

by

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*Catskill Region Program Coordinator*

*& Trail University Manager*

Chances are you have noticed more workshops and new courses being offered through **Trail University**, the Trail Conference's training program for volunteers. What's behind this expansion?

A few things, but essentially they boil down to the Trail Conference gearing up to meet bigger challenges as a provider of trail services in our region as demand for public trails increases.

We have more and more miles of trails, more volunteers, and more interest by those volunteers in learning how to do the best job they can as trail stewards. By improving the training opportunities we offer, we hope you will find more rewards as trail volunteers and that the Trail Conference will enhance its 92-year reputation as the trail experts in the region.

The first improvements to Trail U are to develop an enhanced foundation level of courses for trail construction, trail maintenance and leadership skills. Our initial work focuses on four new courses: *Trail Assessment; Tread and Drainage; Trail Structures;* and *Trail Design and Layout*. When combined with our existing courses, we will be able to provide a robust education to volunteers who want to work on and improve our trails. Trail Maintainers will have new resources for evaluating their trail and making changes or recommendations to their Trail Supervisors.

We also are updating and improving our *Introduction to Trail Maintenance* workshop (formerly *Trail Maintenance 101*). This workshop has been taught by Trail Conference members for over 20 years and will continue to be one of our most recognizable and important opportunities to introduce the Trail Conference to the public and to train our Trail Maintainers.



Another of the most exciting opportunities for Trail University is the creation of a leadership component to Trail University. This will provide educational opportunities to our existing leaders and will help develop new leaders for our Trail Crews, Trail Management positions, and for all of the

leadership positions that are available in the Trail Conference. We want to offer our volunteers a "career path," with opportunities to learn new skills and take on new challenges in a supportive environment.

We began field-testing some of the new and revised courses this spring, getting feedback and suggestions from participants that will guide fine-tuning of the courses over the summer as we prepare to launch [continued on page 2](#)

### Trail U Fees & Referrals

One change that you will notice in Trail University are fees associated with the intermediate and advanced courses. There will be no fee for introductory and orientation courses. Our courses and workshops are designed to engage and reward our active members who have demonstrated a strong desire to support the Trail Conference and its mission through trail work and trail leadership. To support that goal, the Trail Conference will offer full scholarships to courses or workshops for such members when they are recommended by our leaders. For active Trail Conference members, the fee for any intermediate to advanced course will be waived when they are recommended by Trail Chairs, Supervisors, Crew Chiefs, Committee Chairs or Trail Conference staff. Members may be recommended directly by others or may request that they be recommended for a course.

## Setting the bar a primer on water bars

by **Jonathan Martin**  
New Jersey Program Coordinator

**A**fter doing trail work for the better half of a decade, I can't help but notice what goes into creating a trail. In order to ensure its sustainability, your primary focus is to get water off the trail and to keep it off. I have hiked all over North America and, by far, the most commonly used structure in achieving this on existing trails is the water bar. (These days, other techniques are preferred on new or relocated trails.)

A water bar is a series of stones or a log installed across the trail tread at a 45-degree angle that creates a "wall," forcing water off the trail. This technique can be seen on just about every trail you hike on. Some are more noticeable than others due to the fact that many are not installed properly. A correct bar will shed water off the trail before it ever reaches the installed material.



The bar should be seen as a last resort. The reason why many of these bars seem so exposed is because water is hitting them directly, causing the soil around the bar to erode. Further, the drains at the end of the bar often collect debris, causing them to clog. For a water bar to do its job, these drains need to be cleared on an annual basis.

While trail crews build the vast majority of water bars, the job of keeping water bars functioning belongs to trail maintainers. Maintainers should be actively keeping

water bars clear of debris and sediment, making sure outlets allow water to travel well off the trail and letting their supervisors know when water bars are damaged and no longer functioning correctly.

In recent years, land managers have requested that more natural and less maintenance-heavy techniques be implemented in place of water bars, i.e., grade reversals, outsloped tread, drain dips. Our volunteers do their best to meet this request; however, more often than not water bars are the best solution for an existing trail that cannot be relocated. For new trails or relocations, our trail designers and crews actively work to include these more sustainable water management structures.

Basic water bar maintenance is covered in our *Introduction to Trail Maintenance* workshop, while more advanced construction techniques for water bars and other water management structures are covered in our new, *Tread and Drainage* workshop. If your trail has problem water bars or other drainage issues, consider taking this course when it is offered in a region near you. 🐾



**Mr. GOOD BAR:** Water easily sheets off the trail thanks to the 45 degree angle of this bar.



**Mr. BAD BAR:** The bar is running perpendicular to the trail causing water to pool behind it during wet weather.

### Trail University from page 1

the new curriculum in the fall. This work signals just the beginning of the improvements to Trail University. The subcommittees that we developed to oversee course changes will become the basis of an Education Committee that will constantly be reviewing and improving our courses. In addition, the foundation that we are building this season will lead to the creation of additional courses, special workshops and training opportunities that will allow the Trail Conference to remain ahead of the curve when it comes to having the most highly trained volunteers to maintain, improve and build trails, provide leadership on trail issues, and tackle other important issues confronting our trails and the open space they traverse. 🐾

**For more information on Trail University, visit the Trail Conference's website at [nynjtc.org/TrailU](http://nynjtc.org/TrailU).**

## Working with youth

by **Jane Daniels**, *Supervisor Yorktown Trails (NY)*  
and **Walt Daniels**, *Supervisor AT in Putnam County (NY)*

**W**hy should a trail crew or trails chair bother working with youth? Cynics say young people take longer to do work than adults. A recent requirement of a background check makes others reluctant to work with them.

Over the years Walt and I have had many youth projects and will continue to encourage more both on the AT and in the Town of Yorktown. Why do we do it?

- ✔ We are training the next generation of trail volunteers. If we can interest them now, there is a good chance they will continue doing outdoor activities and volunteer. Many school districts have community service requirements or options and letting them know you have projects can provide a good source of interested youth.
- ✔ A project gets done that we do not have to field a crew to do. Aside from teaching the young people how to trim brush, side hill, build water bars or steps, we do not have to come on every trip or set up a work trip where we have to cajole others to help.
- ✔ For Eagle or Gold Award projects, Scouts learn how to manage their peers and learn a life skill of managing a project. In many instances they have to fund-raise to buy materials for their project.
- ✔ Once the project is completed, they have a feeling of accomplishment.
- ✔ They show their friends what they did, decreasing the possibility of vandalism and increasing the idea that it is fun to be outdoors.
- ✔ Sometimes, a member of their crew asks to do a project and the cycle repeats.

In Yorktown in the last six months, we have had an Eagle Scout candidate build 0.6 mile of trail and a Gold Award candidate complete a bridge and build a kiosk. They sought us out with ideas of what they would like to do. Two other Boy Scouts have approached us – one is installing steps on the Appalachian Trail and the other is doing erosion control in a town park.

The Town of Yorktown had a community service requirement for youth who have had a brush with the law. The person in charge of that program has held several trips to build puncheon; three of those trips required the youth carry lumber a half mile. They have also refurbished a parking lot.

We have lost track of the number of youth projects we have mentored. Some include taking photos of views along the AT and in Hudson Highlands State Park, moving wood chips, clearing trail, removing invasives, planting trees, and building kiosks or puncheon.

Involving youth is a win-win situation. They get satisfaction from a project, trail work gets done, and, as a mentor, we hopefully have started to interest a young person in an activity that is meaningful. We will continue to have projects suitable for youth on our trail to-do list. 🌱



## Safety First, and Always!

From the **Daily Star** newspaper, May 12, 2012:

*“A Thursday accident in Colchester left one man in critical condition. Robert Moses and Gerard Benedict were working as volunteers for the Finger Lakes Trail Conference in woods off Holiday Brook Rd. when the accident occurred. They were clearing a hiking trail when Moses used a chainsaw to cut a tree, hanging across the trail. As it fell, it struck another dead tree, causing a branch to fall and strike Benedict, who wasn't wearing a helmet, in the head. He suffered severe head trauma and was still listed in critical condition on Friday night.”*

Sadly, Mr. Benedict subsequently died from his injury. This fatality, along with another serious accident which happened to a volunteer sawyer in Pennsylvania last year, are reminders of why our sawyers, and all volunteers, must be fully trained and very careful. The training we require concentrates on bucking (cutting up downed trees) and limbing. This kind of work presents challenges which are not usually encountered when felling. Both the Pennsylvania accident and this one involved attempts to remove trees that were “hung up” or what some call “leaners.” Both trees fell with unexpected consequences.

A very thorough evaluation of all safety risks must be made be made of any similar situation and there should be no hesitation to flag the tree, walk away and notify the agency so they can bring in people with more experience.

**If you have any doubts, stop and walk away!!**

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## Tips on using, buying & maintaining our favorite trail toys!

Tool guru Bob Jonas provides his “sharp” insights on issues of interest to you sawyers out there.

### Chainsaw Fuels: *alternatives to ethanol*

by Bob Jonas, CNJ Trails Committee & The Highlands Warriors Trail Crew

Ever since gas station fuel suppliers started adding ethanol to our fuel, it has had a detrimental effect on the longevity of our two-cycle gas powered tools. Much of the available fuel contains Ethanol E-10, which is 10% ethanol, and now E-15 is widely distributed, which makes the issue that much worse. The problem with most of our saws and weedwhacks is that, as sawyers, we only use them occasionally, and when stored, the E-10 fuel starts deteriorating after about 30 days. This causes corrosion, which starts eating away at the carburetor’s innards. This process is called “Phase Separation,” where the ethanol component attracts water from the atmosphere and the two bond together forming a layer that typically enters your engine without lubrication. I have spoken with several chainsaw repair technicians who tell me that they have replaced more carburetors this last year than the preceding ten years. Corroborating evidence is also available on the Internet.

The usual solution to this problem was to use the highest test fuel available at the pump, add a stabilizer – such as Sta-Bil, and then your two-cycle oil additive. If you’re storing your equipment for a month or two without usage, it was best to dump the fuel and recycle it in an ecological manner. I used to put the old fuel into my vehicle, but I’ve found out that this is a bad move that could cause a serious problem with your injectors. Now, I bring it to my local gas station and they recycle it for me, no charge.



Thankfully there is now a better way ... using a premixed fuel/oil combination that does not contain ethanol. This item is widely available in either a 50:1 or 40:1 ratio for whatever is recommended for your saw. It’s available in the big box stores as well as local lawn-mower shops.

The upside of these products is that they are much more convenient. You do not have to mix oil or stabilizers. The fuel has a high

octane rating, it has a shelf life of up to two years after opening the can, and it can help extend the life of your equipment. The downside is that it’s a bit more expensive. A one quart can costs between \$5.00 to \$8.00 depending on the brand.

I’ve been using both TruFuel 50 and Stihl’s Motomix in my chainsaw as well as other two-cycle outdoor equipment and I’m very pleased with the performance. Now, instead of carrying a fuel bottle I just carry a can of this premix and a can of bar oil. What could be easier? 🐾

Got a Tool Tip you’d like to share?

Send it to: [trailworkernews@nynjtc.org](mailto:trailworkernews@nynjtc.org).

### A Better Chainsaw Filing System

by Bob Jonas



Over the last ten years I’ve tried a number of chainsaw filing systems, including: electric models that employ a precise grinding wheel combined with an adjustable platen that can be set to the proper angle and depth; bench-mounted filing tools that sharpen your chain loop off the bar; bar-mounted filing tools that sharpen your loop on the bar; and hand-held filing guides.

I wasn’t been totally pleased with any of them until I purchased a unit that was suggested a few years ago by our chainsaw instructor from the NJ Forest Service, Jack Shuart, who is known to many of us as “Hatchet Jack.” The unit, which is manufactured by **Prferd** in Germany, holds both a flat file for the depth gauge, and a round file for the teeth. The two files work in unison to keep your chain in perfect working condition. If done on a regular basis, it only takes about two swipes across the teeth to keep them sharp. The files are replaceable and interchangeable so they can hold the file that is the correct size for your chain as recommended by the manufacturer. The proper angle and direction is marked on the tool, so it’s easy to keep the correct horizontal cutting angle. The only tricky part is keeping this tool at a 90-degree angle to the chain mounted on the bar, so your tooth is filed evenly. However, with very little practice, it’s easy to use this tool at the workbench or in the field.

The **Prferd** chainsaw tool is available from suppliers on the internet. It isn’t cheap, at about \$35.00, but it is well worth it. Click [here](#) for more details on the tool. 🐾

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## Close Encounters of the Wild Kind

**M**any of us perform our trail duties in areas that are known to be populated with black bears. We are often on our own and far from the nearest road or building. No doubt some of our volunteers have had close encounters with our big, furry friends. It is not a meeting to take lightly, but armed with the proper knowledge and an understanding of bear behaviors, we can avoid any problems or misunderstandings.

Black bears, by nature, are generally wary of humans and avoid us whenever possible. However, if you do encounter a bear on the trail, follow these common-sense safety tips that have been compiled from information available on the NJ Department of Environmental Protection and NY Department of Environmental Conservation websites.

- Never feed, approach, or surround a bear! Bears aggressively defend themselves when they feel threatened. Be especially cautious around cubs as mother bears are very protective.
- Remain calm.
- Make the bear aware of your presence by speaking in a calm, assertive voice, singing, clapping your hands, or making other noises.
- Make sure the bear has an escape route.
- Avoid direct eye contact and never run from a bear. Instead, slowly back away.
- To scare the bear away, make loud noises by yelling, or using an airhorn. Make yourself look as big as possible by waving your arms. If you are with someone else, stand close together with your arms raised above your head.
- The bear may utter a series of huffs, make popping jaw sounds by snapping its jaws and swat the ground. These are warning signs that you are too close. Slowly back away, avoid direct eye contact and do not run.
- If a bear stands on its hind legs or moves closer, it may be trying to get a better view or detect scents in the air. It is usually not a threatening behavior.
- Black bears will sometimes "bluff charge" when cornered, threatened or attempting to steal food. Stand your ground, avoid direct eye contact, then slowly back away and do not run.
- If the bear does not leave, move to a secure area.

Black bear attacks are extremely rare. Bears have no desire to meet up with us on the trail and will avoid us if they know we are nearby. However, when we do get a bit too close for comfort, being knowledgeable, alert, calm and decisive can diffuse a potentially dangerous situation.

For more information on being safe in bear country visit these links:

[http://www.dec.ny.gov/docs/regions\\_pdf/bcbears.pdf](http://www.dec.ny.gov/docs/regions_pdf/bcbears.pdf)  
<http://www.njfishandwildlife.com/bearfacts.htm>

*Les Ferguson*

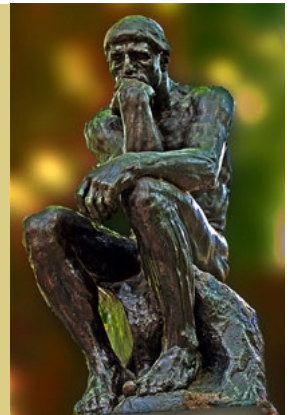
## Trail Reports Coming Due!

**I**t's that time again. One of our duties here at the TRAILWORKER is to remind everyone to submit their biannual maintenance reports. Maintainer reports are due **June 30th**. Supervisor and Crew Chiefs reports are due to their Chairs by **July 15th**. The Chair reports are due by **August 1st**.

Be sure to use the correct form. Reporting forms have minor and sometimes major changes. All forms, including the two-page **trail maintenance report** form, are on the web site at: [www.nynjtc.org/pform/trail-maintainer-report-form](http://www.nynjtc.org/pform/trail-maintainer-report-form), or by contacting your supervisor or chair.

To find out who your Supervisor is, contact your regional representative (find them at [www.nynjtc.org/content/staff](http://www.nynjtc.org/content/staff)). Trail crew chiefs and supervisors send their reports to their regional Chair; the Chairs send reports to their Regional Program Coordinators. The information contained in these reports is crucial to operations, planning and analysis. Please don't neglect this very important responsibility. 🌿

## What's your big idea?



**TRAILWORKER** is **your** newsletter. We are looking for content that interests you. Articles, pictures, comments, opinions, suggestions, rants and raves are welcome and appreciated.

Please e-mail your ideas, submissions and photos to the TRAILWORKER at [trailworkernews@nynjtc.org](mailto:trailworkernews@nynjtc.org).