

# Walker Valley REFLECTIONS

The newsletter of Great Smoky Mountains Institute at Tremont • Fall 2006

## High ADVENTURE

*If, throughout time, the youth of the nation accept the challenge the mountains offer, they will help keep alive in our people the spirit of adventure. A people who climb the ridges...who enter the forests and scale peaks...these people give their country some of the indomitable spirit of the mountains.*

— William O. Douglas



From backcountry campsite 68 on the Forney Creek Trail, the climb to the top of Clingmans Dome is about three miles long, with an elevation gain of nearly 2,500 feet. The trail is narrow, rocky, and steep, a challenge in the best of conditions. This July, for a group of teenagers who hiked it by flashlight with full packs at a rainy four in the morning, the climb became nothing less than the adventure of the summer.

It wasn't my idea. Clingmans Dome is the highest point in the park, the state, and the whole Appalachian Trail. It was also the highest peak we would climb on our seven-day Teen High Adventure backpacking trip. The day we planned to

be there happened to be one participant's 17th birthday. Over re-hydrated mashed potatoes the night before, our birthday girl mentioned how much she would love to see the sunrise from the top of the mountain. While all the arguments against such a wild idea flew through my head, I looked around the circle to see the rest of the group agreeing with her—yeah, that *would* be cool. They understood that we'd have to wake up at three and take down camp, that we'd be walking in the dark on a difficult trail, that we wouldn't even eat breakfast until we reached the top, and that there was always a chance we'd see nothing but fog once

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by Mary Silver

# High Adventure

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we got there, but almost all of them were still eager to try. In the end, I only agreed to go because I didn't believe they would actually get up in the morning.

After a long night of rain and thunderstorms, I was even more confident of spending a cozy morning nestled in my sleeping bag, until I saw a flashlight through the open end of my tarp.

"Mary," said one of the guys from the tent nearest me, "wake up. It's 3:15 already."

"I'm not moving from this sleeping bag," I told him, "until I see everyone else out of their tents."

"They already are," he answered, and sure enough, when I looked across the campsite, there were nine teenagers packing up for the day. Only one was sane enough to sleep in, and my co-leader Michael volunteered to stay back with him and wait for daylight, so half an hour later the rest of us set off.

We walked silently at first, each confined to our own raincoat hood and excited anticipation. The thunder was over, but the steady rain and darkness transformed an ordinary mountainside into something unknown beyond the edges of the flashlight beam. We stayed close together, and toads and salamanders hurried out of our path. From the back of our line of bobbing headlamps and rustling ponchos, I heard someone wonder aloud, "Is this legal?"

After a tricky stream crossing, some switchbacks that wouldn't have been nearly so confusing in daylight, and a section of trail hardly wider than our boots, it was the Christmassy smell of Fraser fir that told us we had reached the high country. Light came slowly then, beginning with a paling sky between the treetops and gradually brightening the forest around us. We could see in shades of gray by the time we picked up the Forney Ridge trail, and in color half a mile later. Had we missed the sunrise?

At the precise moment when the sun

first appeared over the horizon that morning we were hiking under tree and cloud cover—so yes, we had missed it. By the time we had climbed far enough to realize it, though, our hike wasn't about catching sunrise anymore. It was about the way the woods feel in the early morning, about goofy reworded Christmas carols in the spruce-fir forest, about wet socks and dripping sweat and distant owl calls. It was about finally rising above the clouds and looking down to see them like some phantom river, filling every valley below us for miles. It was about the best oatmeal we'd ever eaten, about the feeling that, after four days of hiking, we appreciated the view from the top more than we ever could have after an hour's drive from Gatlinburg. Our morning was about meeting the unknown and not conquering it, but simply hiking alongside it for a few hours. And finally, it was about the challenge and the joy of adventure. As these teenagers from seven different states and a wide range of backgrounds all agreed, we felt pretty hardcore.

## From the Director

We've had a wonderful summer of experiences in Great Smoky Mountains National Park at Tremont and a great staff to make everything the best it could be. But don't take my word for it! I'm going to keep this short so you can get on to reading the great articles in this issue that give a flavor of what went on here.

### BACK TO SCHOOL TRANSITIONS

We are getting ready for schools that are already returning to Tremont. If your school has not scheduled a date with us for this school year please contact our registrar Julie Brown to do so. We still have some dates left. If you are interested in learning more so that you are ready to schedule a group for the 07-08 school year when scheduling opens in January then please contact us as well.


• As many of you already know, Jennifer Webster will be leaving us this fall

to have her baby. We will miss her in the role of School Program Director but wish her the best as new mama. We are hoping that as things settle down that she can continue to assist us with some of the work that she has begun. The school program will be in the capable hands of Jennifer Love who comes to us with extensive experience in environmental education and as a classroom teacher. She will be ably assisted by our great naturalist staff with the exception of Charlie Muise, who is leaving as senior teacher naturalist for a teaching job in Georgia. We will miss Charlie, his energy, enthusiasm for natural history and passion for birds, dragonflies and many other Smokies critters. Congratulations to Jen Martin, who will be stepping into the senior teacher naturalist role. We are also pleased to welcome Mary Silver, who has worked with us for the past three summers as a teacher naturalist.

• One other staff transition of sorts and congratulations go to Jeremy Lloyd, who was married to Elan Young on August 12th on the Tremont grounds! We had great fun, and a number of former Tremontsters gathered for the celebration. The good news is that Jeremy will not be leaving Tremont.

### FACILITIES UPDATE

There is forward movement on our process for "undeveloping" Tremont with a plan for new facilities and site re-development. Our first set of Public Environmental Assessment meetings were held on August 14 and 15th. For more information on the alternatives that are being developed, progress on this project, and or to make official comments visit our web site: [www.gsmit.org/e\\_a\\_tremontundevelopes.html](http://www.gsmit.org/e_a_tremontundevelopes.html) or the official national park planning site: [parkplanning.nps.gov/projectHome.cfm?projectId=16369](http://parkplanning.nps.gov/projectHome.cfm?projectId=16369)



Executive Director

# Explore the Smokies

*It's not just for kids!*

by Jen Martin

Summer camp at Tremont is full of opportunities. Opportunities to hike, explore, relax, make new friends, be away from home, swim, stay up late, get rained on, camp out—the list could go on and on. It is always exciting, and when all the campers get together at supper time, the dining hall is full of chatter describing their day, how many salamanders they caught, who saw a bear, and who has the most insect bites.

There is such a diversity of summer camp programs at Tremont. Teenagers go backpacking for up to seven days, some campers spend several days focusing on certain topics such as aquatic ecology, and field ecology campers do research projects compiling data they uncovered while out in the mountains. I was fortunate to hang out with all three camps, and got a taste of what each entails.

One weekend we had the chance to go along with the field ecology campers up to Purchase Knob. The Purchase, where the Appalachian Highlands Science Learning Center is located, is in North Carolina at about 5,000 feet above sea level. This is one of five science learning centers in the United States. The National Park Service hopes to have 32 learning centers in the future, with a goal to support science research in National Parks and relay that information to the public. Purchase Knob has numerous science projects in which they are involved; some are similar to what we do at Tremont, such as moth inventory, bird banding and salamander monitoring.

Aside from the unique environment

where the Purchase is located and the incredible research projects, there is an interesting story as to how the Great Smoky Mountains National Park acquired this land in the first place. It was actually a donation, the largest donation the national park has ever received. In 2000, Kathryn McNeil and Voit Gilmore donated the land and their summer home for this research center. Because of their donation, Tremont field ecology campers had the opportunity to spend the weekend studying a high elevation ecosystem.

It is not only the kids who have the chance to explore Purchase Knob. Tremont is offering a Purchase Knob/Cataloochee weekend on October 27-29 as a part of Fall Naturalist weekend. During this weekend we will camp on the newly constructed tent platforms and be on top of the world to watch the sunrise and sunset. Folks will arrive Friday afternoon at the Purchase, just in time to explore and have a fine dinner while overlooking a dozen mountain ranges. On Saturday we will spend the day hiking to Cataloochee, a remote valley in the park where the elk reintroduction project is located. October is the season when the elk are active and bugling, a sound which you will not forget. Along the way we'll explore the Boogerman

trail (yes, that really is the name!) and see some of the largest trees in the park. At night we'll reward ourselves with a dinner out in Maggie Valley. Sunday offers a hike towards Hemphill Bald, with a view that will stick in your memory for months to come. We also plan to locate box turtles—a Purchase Knob research project which uses radio telemetry to track these fellas. You have to see it to believe it!

The Great Smoky Mountains National park encompasses 520,000 acres of wilderness. This is just one more opportunity to get to know another section of the park a little better. For a more in depth schedule of the Purchase Knob/Cataloochee weekend, see [www.gsmit.org/adult/natweekends.html](http://www.gsmit.org/adult/natweekends.html). You will not want to miss it.

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## Tremont Friends Work Day, November 11

**Come join us if you can for our annual volunteer work-day. We will have a number of projects lined up and will put those who are willing to work, no matter what your skills. We will gather at 9:00 am and go till about 4:00. Lunch will be provided for workers. Please contact Julie at our office to let us know if you are coming. 865-448-6709, [mail@gsmit.org](mailto:mail@gsmit.org)**

# Tremont 2006 Summer Weather Summary

Averages are over the past 16 years

	May	June	July
Average rainfall (inches)	5.35	6.17	5.67
2006 rainfall (inches)	7.56	3.23	6.00

	May	June	July
Average max. temp. (°F)	76.5	84.4	88.4
2006 avg. max. temp. (°F)	76.1	86.6	88.8
Average min. temp. (°F)	52.6	60.2	64.2
2006 avg. max. temp. (°F)	53.3	60.6	62.6



## Please Help!

The Smoky Mountains Hiking Club needs volunteers to help maintain the Appalachian Trail in the Great Smoky Mountains National Park. If you are interested, please go to

[www.smhclub.org](http://www.smhclub.org) and click on the item just under the logo on the home page. That link provides detailed information on what is needed and how to sign up.

# A Smoky Mountains Summer

*A retrospective of what we accomplished this season*

*by Sheri Liles*



Another summer camp season has passed at Tremont, and we can all exhale deeply and bask for a moment in the late afternoon sun of reflection. Here are the thoughts that come to me as I look back over the past three months.

First, as the oldest member of the Tremont teaching staff, I tend to take things a little slower both by design and necessity. Life at Tremont is teaching me that there is value to being the sweep person on a backpacking trip. I tend to see things others have missed, like the baby snapping turtle beside Rich Mountain Trail, and I have the luxury of long conversations with other backpackers who cover the miles at a similar snail's pace.

Like the adults and kids who come here, I rediscover each day that we can do more, be more than we might have believed possible.

As leader of the Cherokee history segment of expeditions camp, we challenged ourselves to replicate the ancient tradition of going to the water for cleansing at the beginning of each day. Now to some, it may seem counterintuitive to plunge into the cold waters of the Middle Prong at 7:30 AM before breakfast, but we actually came to enjoy the abrupt startle to our bodies and half-asleep minds, and most would have continued the tradition with a little encouragement.

Did we have fun? Yes! We swam a lot on those backpacking trips. It's been beastly hot this summer, but we played in the streams like otters and invented our own games, climbing the river rocks and exploring farther and farther upstream. At night we sat around the campfire and played endless

games of "Mafia" and a game called "Hitchhiker" that kept us all in stitches.

Did we learn anything? Another resounding yes! We learned that you can't always trust those bear bag devices in the back country: the one at campsite #4 on Ace Gap Trail came crashing down around us only minutes after we'd hung an admittedly heavy cache of food and snacks. But the ingenuity of those Wilderness Adventure Campers devised a solution in no time; they untangled the snarl of steel cable

and hooks and fashioned a lopsided replacement that, while maybe not bear proof, was at least a temporary obstacle.

Did we leave the world a better place? I believe we did. We hauled out huge bags of trash from campsite 17 on Little Bottoms Trail and cleaned out every fire ring. We came to appreciate the history of the Cherokee and their struggle for survival, and the Expeditions campers themselves became a unified "clan" who took pride in their member's accomplishments and helped each other through the rigors of mammal tracking in Cades Cove, and shelter-building up on Dorsey Branch Trail. As their adult leader, I've come to recognize the importance of these "rites of passage" type experiences in the lives of American teenagers. As we mentor them through the challenges of living in the wilderness, grappling with tough issues that impact the environment, living in community away from their comfort zone, we send them out a little stronger, more tolerant, and hopefully with a love of learning and exploring that will last a lifetime.



# EcoArt

*Using imagination while directly experiencing the natural world*

*By Abby Hovis*

Creating connections to bring the ecological experience full circle for people who may not otherwise think about the natural world around them is a continual challenge in environmental education. Tremont is progressive in this school of thought and is discovering diverse ways to connect people with nature. The summer of 2006 at Tremont has offered participants the opportunity to visually recreate their experience in and about Great Smoky Mountains National Park.

Discovery Camps I and II gave participants the chance to use their imaginations while directly experiencing the Smokies. Campers experienced the landscape intimately and learned the multiple dimensions of the Smokies through art-making. First, they constructed a sketchbook to record drawings of their observations during the week. The participants recorded their impressions of the natural world through drawings, revealing diverse patterns, colors, and textures. Based on these drawings, the children worked together to create a large abstract painting. This was a great opportunity for the Discovery Campers to summarize and personalize their experience with nature. Discovery Campers also completed a printmaking project that reflects the flora and fauna of the Smokies; the prints were incorporated into a quilt that will be displayed as a wall hanging for Tremont.



Thanks to this summer's Naturalist Expedition campers, Tremont's River House has been graced with a new splash of color and creativity. During a three-day session on aquatic ecology, this enthusiastic group explored the aquatic habitats and species of the park. They learned of the intrinsic value of the local watershed, came to appreciate its fantastic diversity, and

Painted a mural based on their exploration of Little River habitats.

Naturalist week afforded adults the opportunity to reconnect with their inner creativity through their power of observation of the natural world. Tremont is working to create

a collaborative metal sculpture composed of individual metal relief panels crafted by adult participants. The sculpture, to be hung in the Pavilion, is an ongoing project which will be enhanced as Tremont's guests continue working on it throughout the year.

Art-making invites an avenue for people to partnership with the earth. Through art, folks can explore different concepts in relating to the earth and build their commitment towards a solid relationship.

Tremont continually looks for new ways to expand each participant's experience. It is imperative that every-

one takes with them a deeper connection to nature so they can determine a sense of place, foster stewardship, and cultivate diversity. The art-making experience, Tremont staff believes, is another way to successfully achieve its fundamental goals.

## Meeting The Challenge

"Challenge by choice" is a term used in the environmental education field that has very special meaning to me. It means to put someone in a situation that will take him or her out of their comfort zone and force them to either react, shut down, or walk away from the situation. The ultimate goal of challenging a person in this manner is for the reaction to be a positive one, and for the person to understand what challenges them in the first place. Whether it is a long hike, camping overnight, or swimming in the river, the environment is full of wondrous things. Some people enjoy them, some do not; even more people have not experienced them at all. Moving people out of their comfort zones and challenging them to try new experiences is what this concept embodies. It doesn't matter how much outdoor experience you have because the natural world is full of exciting new challenges.

My internship this summer at Tremont has been full of challenges. My biggest one by far was working with children. Coming into this, I didn't have a lot of experience keeping children focused on a subject or a goal. Having to get those kids focused and listening was hard for me, and I feel that I rose to accept that task. Another challenge that I faced was going caving with the ATBI researchers. I wasn't sure if I would be comfortable crawling on my stomach in extremely tight spaces. I was forced to make a decision as to whether I wanted to go in the cave or stay in my comfort zone. I decided to rise to the challenge and explore the cave. After about ten minutes in the cave I realized I had made the correct decision—I was enjoying myself, and the tight spaces did not bother me. Even when my head got stuck a couple of times between the floor and the ceiling, I was more concerned with keeping up with the group than the lack of room to move.

The concept of challenge by choice was present for our summer campers as well. The first day of camp can always be a scary and intimidating time for a child. How the children react can make all the difference in the world. Typically when a child is extremely homesick or removing themselves from the group, he or she is not reacting to the challenge in a positive way. The child is shutting down and yearning to be back in their comfort zone. Another common challenge faced by most campers is our all day hike. Most kids have never hiked or have hiked only a couple of miles. When they hear the distance, most of them are uncomfortable with it. However, once they complete the hike, which all of them do, they can't believe they were ever worried and leave with a satisfaction of being challenged and having risen to that challenge.

Overall, once you realize that when you are challenged and are being removed from your comfort zone, it is best to relax and not shut down. If you can extend your comfort zone and tackle your new challenge, nothing will seem impossible. I enjoyed rising to meet my challenges this summer and watching campers rise to meet theirs in the Great Smoky Mountains.

— Andrew Franklin

# The Spruce-Fir Forest

Clouds, critters, and ghost trees

by Amber Parker

These hot summer days make us long for the cool, cloud-filled world of the high spruce-fir forests. We hope you can visit this amazing forest type when you next enter Great Smoky Mountains National Park.

The conifer dominated spruce-fir forest seems a world away from the deciduous forests that blanket the majority of our mountains. Two tree species, red spruce (*Picea rubens*) and Fraser fir (*Abies fraseri*) make up the majority of the forest canopy which shelters a small number of shrub and herbaceous species. Their dark trunks rise high above the mossy forest floor, blocking sunlight and keeping the forest floor in a state of perpetual twilight. Footsteps are muffled by a thick layer of needles, which take years to decompose due to the low temperatures and acidic conditions. Any plant living below these evergreens must be tolerant of shade and acidic soils. Stepping into one of these dark, mountain-top woodlands on a day when the clouds swirl and race through the trees and the only sound is that of a winter wren's long, tinkling call is an experience that the first time visitor never forgets.

The Southern Appalachian spruce-fir forest, a relict of the Pleistocene era ice ages, is, due to the current warm climate, confined to mountain-tops in southwestern Virginia, eastern Tennessee, and western North Carolina. It is very similar to the boreal conifer forest of New England and Canada, although the Fraser fir is endemic to the Southern Appalachians.

Spruce-fir forest is the least abundant forest community in the Southern Appalachians. They are separated into disjoint patches that are thought of as high elevation "habitat islands." Because of their limited habitat area these spruce/fir islands are of concern to conservationists. Small size and limited location often means that species populations on these mountain-tops are small and more vulnerable to extinction. The overall range of the spruce-fir forest community has been reduced by fifty percent, due to logging and related

impacts. The balsam wooly adelgid, a non-native insect that attacks Fraser fir trees has resulted in a 45-90 percent mortality rate of the Fraser fir. Although most spruce-fir forests are now protected and managed by the National Park Service and U.S. Forest Service the outlook for their future health is not positive.

## Dominant Tree Species

Spruce-Fir forests do not have a great diversity of tree species. The species that exist in these high elevation forests must be able to endure colder temperatures, short growing seasons, and heavy snow and ice. The two dominant species are, as the forest name implies, red spruce (*Picea rubens*) and Fraser fir (*Abies fraseri*). These two conifers compose the great majority of trees and most often the entire forest canopy. In the lower elevations (4,600'-5,500'), a few hearty species such as yellow birch (*Betula allegheniensis*), mountain maple (*Acer spicatum*), American beech (*Fagus grandifolia*), pin cherry (*Prunus pennsylvanica*), and yellow buckeye (*Aesculus flava*) are found in association with red spruce and Fraser fir. Increases in elevation decrease the number of deciduous trees until only one, mountain ash (*Sorbus americana*) is left as an associate to Fraser fir on the highest peaks.

## Associate Vegetation

The closed canopy of the spruce-fir forest keeps much of the sunlight from reaching the forest floor and therefore reduces the number of species that can survive in those light levels. Although shrub and herbaceous layers of the spruce-fir forest are not diverse, the species that do survive there are often abundant. The shrub layer is generally composed of witch hobble (*Viburnum lantanoides*), mountain cranberry-bush (*Vaccinium erythrocarpum*), red elderberry (*Sambucus racemosa var. pubens*), and young mountain


ash and mountain maple. Exposed ridges and rocky outcrops often have an evergreen understory of Catawba rhododendron (*Rhododendron catawbiensis*) and the most exposed areas may give way to shrub dominated heath balds. Often forest light gaps are colonized by tangles of smooth blackberry canes (*Rubus spp.*) The herbaceous layer is strongly dominated by three ferns; intermediate wood fern (*Dryopteris intermedia*), mountain wood fern (*Dryopteris campyloptera*), and southern lady fern (*Athyrium filix-femina. Var. asplenioides*). In addition, most spruce/fir forest have a luxuriant layer of mosses and lichens and shade tolerant wildflowers, such as Clinton's lily (*Clintonia borealis*), oxalis (*Oxalis montana*), Rugels ragwort (*Rugelia nudicaulis*), forming a layer beneath the spreading fern fronds.

Forest edges and roadways offer additional sunlight and support several varieties of wildflowers that are uncommon in the depths of a spruce-fir forest. Spectacular displays of green-headed coneflower (*Rudbeckia lanceolata*), turtleheads (*Chelone lyonii*), red beebalm (*Monarda didyma*), along with filmy angelica (*Angelica triquinata*) and several varieties of orchids can be seen blooming along the road to Clingmans Dome.

## Related Animal Species

The spruce-fir forests of the Smokies are home to a variety of special animals. Some of these, like the Northern Flying Squirrel, Black-capped chickadee, and Northern saw-whet owl are species of the far north that found refuge in this area during the last ice age, remaining in these northern-type forest refuge as the glaciers receded north and the spruce-fir forest retreated to the tops of mountains. Others, like Jordan's salamander, and the spruce-fir moss spider are endemic to these mountains, having evolved in the cool, dim world of the spruce-fir.

Bird species such as chestnut-sided warbler, veery, junco, golden-crowned kinglet, red-breasted nuthatch, common raven, and winter wren prefer the high elevation forests. Reptiles are few. They are represented by midland brown snake, eastern garter snake, northern ring-necked snake, and timber rattlesnake, few of which reach the highest elevations of pure fir stands.

  
Places to see a spruce-fir forest:

New Found Gap

Clingmans Dome

Appalachian Trail

  
Distribution:

Elevations above 4,500'

The crest of the Smokies.

Amphibians include Jordan's, pigmy, ocoee, imitator, southern grey-cheeked, blue ridge spring, and Blue Ridge two-lined salamanders.

## Status

Spruce-fir forest are considered one of the most endangered forest ecosystems in

the world. Signs of spruce-fir forest's waning health can be easily seen. The bare, white trunks of Fraser fir trees, long dead from attack by balsam wooly adelgid, rise amongst the red spruce and form stands of "ghost trees" on the high ridges. The loss of the Fraser fir has changed the forest composition causing a decline in other species; for example,

oxalis populations have declined by up to 80 percent since the loss of Fraser fir. Although protected and managed by the National Park Service, their small range, exposure to air pollution and non-native pest species such as the balsam wooly adelgid, make the future of southern Appalachian spruce/fir forests uncertain at best.

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## Great Smoky Mountains Photo Contest

*Announcing Tremont's first competition*

*A good snapshot keeps a moment from running away.* —Eudora Welty

I think, perhaps, that there are as many famous sayings about the value of a photograph as there are famous photographs. Which has always amused me, since the most famous saying of all tells us a single picture can give as much information as wordy written text can.

For many people—myself included—a camera is always close at hand, ready to capture a special moment before it disappears. And then, of course, those moments must be shared with friends, family, and co-workers. It's as natural a part of the process as taking the photo in the first place. Sharing the pictures is a way of sharing the moment, of spreading that wonderful feeling you had when you took the picture with those you show it to.

Well, here's your chance to share those moments with an even larger audience. We're announcing the first Tremont Photography Contest, which we plan to sponsor annually. This is a chance to let your best shots shine and show the world your prowess behind the lens.

Each year we'll have a different theme. To keep things simple, we're taking this year's from our mission statement, "*Connecting People and Nature.*" Your pictures need to be taken inside Great Smoky Mountains National Park, and, as the theme implies, need to include people in the photograph. This can include, but is by no means limited to, photos taken during one Tremont's programs. In order to help share the moment, include a short paragraph or two telling us the story behind the photo. And teachers and parents, tell your students and kids—*young folks'* submissions are very much encouraged.

**Now, of course: the exciting stuff.** One grand prize winner will be chosen by Tremont staff, and will receive a voucher for free admission to a Tremont program of your choice (value up to \$300 dollars). Second prize is half price admission (value up to \$150). This can be used by yourself or may be transferred to someone else. There will be three honorable mentions, each of which will receive a free Tremont water bottle. Additionally, we'll feature the winner (and perhaps others) in our next newsletter and on our website, and any of the photos may show up in future publications. The top twelve shots will be featured, one each month, in our E-newsletter.

Okay, the nitty-gritty: A maximum of four submissions per person. Amateur photographers only! Entries must be received by October 31, 2006. Photos can be submitted electronically to [josh@gsmiit.org](mailto:josh@gsmiit.org) or by snail mail to 9068 Tremont Rd., Townsend, TN 37882, Attn: Photo contest; or submitted in person at our offices. Electronic submissions need to be sent full-size—please don't reduce the size of the photos to make them faster to send! Photos sent by mail need to be 8x10"; any entries that you wish returned must include a self-addressed stamped envelope. Each submitted photograph needs to be accompanied by a separate entry form, which can be found on our website at [www.gsmiit.org/photocontest](http://www.gsmiit.org/photocontest), or can be picked up in our gift shop. See our website for complete rules and information.



Good luck and happy shooting. We can't wait for you to share your moments with us!

### THE RULES: A QUICK GUIDE

- Four submissions maximum per person
- Amateur photographers only
- Entry deadline: received by October 31, 2006

To send electronically: send to [josh@gsmiit.org](mailto:josh@gsmiit.org)

- send full-size image

To send by regular mail: 9068 Tremont Rd., Townsend, TN 37882 ATTN: Photo Contest

- prints must be 8 x 10 inches
- Include a SASE and completed entry form

Entry forms can be found at [www.gsmiit.org/photocontest](http://www.gsmiit.org/photocontest), or pick one up in our gift shop.



## Get It?

*The Smokies as a place to teach and practice stewardship*

*by Joel Chang*

This summer I trekked across our country to work here at Tremont. Now nine weeks later I think I finally am figuring out exactly what Tremont is about. Now that I understand the joy of listening to the Middle Prong calmly go about its business, I feel obligated to help the park as if it were a living being, for it is. At times this involves picking up the odd piece of trash or helping renovate a trail—in general, reducing my impact upon the park.

We at Tremont also strive to pass on this knowledge to students and teachers. Having had the opportunity to work with both Discovery Campers and Expedition Campers, I had the chance to help pass on this important message of stewardship. Yet how can someone like me, who has recently fostered a love for this place, pass on such an ambiguous concept like stewardship? Interestingly I found myself in this position one day, quite by chance, and was amazed when my students ‘got it’.

The lesson was about stream ecology. We had just hiked down to Girl Scout Island after a hearty breakfast at the dining hall. Morning fog was still lingering over the water and it was that gray area between chilly and cold. Armed with snorkels, nets, and identification keys, my troops were excited about exploration until that first toe touched the water. “You

(pointing at the counselors) expect me (pointing at self) to get into THAT (pointing at the rather chilly water)?” Obviously we had some work to do.

Well after a while of splashing and catching crawdads and caddis fly larvae, the campers needed a break. One of the other interns spied a rock dam that some swimmers had made on the other side of Girl Scout Island. This being stream ecology, we all gathered around and had a look. After some questioning and probing we finally got the kids talking about the pros and cons of both small and large dams. We talked about man-made dams and how they provide energy for us, but also how they decrease habitat and alter natural settings. After our discussion we talked specifically about the dam in front of us. We realized that it was disrupting the flow of the river, increasing sediment deposition, and not producing any beneficial items. After this discussion we promptly dismantled the dam. I will simply state that we had a blast. During our deconstruction we spotted several salamanders, Caddis Fly Larvae, Water Pennies and a slew of other aquatic creatures.

I didn’t think about it until the next day when we were

exploring Cades Cove around dusk. We had spent a full day mucking around in mud looking for newts, listening for frogs, and wandering along Abrams Creek. It was along Abrams Creek that one of our students spied a dam. He quickly got the attention of the rest of the group and they collectively petitioned the counselors for a chance to deconstruct the dam. Wondering what they got out of the last deconstruction effort I simply asked them why they wanted to take it apart. Immediately hands flew up and upon witnessing my shocked silence they immediately began peppering me with facts and reasons why artificial dams are detrimental to the health of a stream.

I realized later that night that our students had really gotten it that night at Abrams Creek. They, without knowing it, had become stewards of our park. They recognized a part of the park that needed to be fixed. Most likely the builders of the dam didn’t mean any harm to the park but were simply ignorant of the repercussions that artificial dams have on streams. I am proud to say that even if the students went home muddy and slightly wet, they now know the importance of stewardship within stream ecology. Perhaps the message and information will be passed between siblings, friends, or simply remain personal knowledge. Regardless, if even one of these children thinks twice about damming up a river or a stream, we have succeeded.

*The public must retain control of the great waterways.*

*It is essential that any permit to obstruct them for reasons and on conditions that seem good at the moment should be subject to revision when changed conditions demand.*

—President Teddy Roosevelt, 1908



# An Unexpected Insight

*Seeing other viewpoints*

*by Will Tarleton*

After spending three days with nineteen participants ages eleven to fourteen during Expedition Week learning about Cherokee history, it became apparent that one theme in particular began to evolve. "The white man's ambition" was, and in some ways still is, the crux of much environmental and social degradation. Many of the kid's remarks began to be more sarcastic, demeaning, and hopeless. The theme of "the white man" was confirmed at our closing ceremony with comments such as "I realized how terrible the white men were to the Indians," and "I enjoyed going to Cherokee reservations and going to the museums, but I was really disappointed to hear how the whites treated the land and the people."

Facial expressions and verbal tones signaled that an uneasy conception about history had been revisited. Obviously, this was not the first time such overbearing truths or misconceptions of the "white man's" place in history had been felt. Students take many historical facts derived from the pages of their history books verbatim, whether by

mistake or by choice, therefore creating misconceptions in their understanding of history. Personally, I almost always took the history I learned in school as fact and was never taught to question the validity of history. That was before I was told in middle school that winners write history and there is more to history than knowing only what happened, when, and where. History was "his-story." I think for an individual to understand a specific event in history, the context of which [that] specific event took place must be understood.

As with the arrival of the European settlers into this region of America, many events that took place here could be looked back upon as oppressive tactics that degraded the ecological environment and the native peoples. I felt that these kids were getting what they might not have gotten in their history classes, a different viewpoint from the other side of a historical event.

For the most part I understand that the killing and removal of native peoples was not clandestinely documented, but a lot of

such activities may not have been given the proper acknowledgment that they should have. When one group of people oppresses another, the events that took place are usually not a pick-me-up. So how should we handle history that is sensitive? We cannot ignore it if it is part of the truth. Should we candy-coat it? When any serious events occur, especially ones that deal with life and death, we usually try to debrief the issue or discuss the issue, trying to understand every detail about the event, and what we can do to prevent it from happening again. There is a lot we can learn from our historical events. We learn the causes and effects, we learn how to avoid disasters, what to do and what not to do. I believe that our youth need to be a part of these types of discussions as well. We need to cultivate a sense of empowerment through understanding.

I feel that the participants learned a great deal about Cherokee history and left Tremont with a positive, deeper understanding of the Cherokee's way of life. One particular activity I was involved in was going to Katuah, the birthplace of the Cherokee. There, seated in a circle on a grassy mound overlooking the surrounding flat-leveled cornfields, we involved the kids in an exercise to help them reflect on what they had experienced. With their eyes

*continued on page 10*

## A Hike Back in Time

*Lessons learned from a simpler era*

During our Smoky Mountain Family Camp week this summer, I took a group of adults and their children to Little Greenbriar Schoolhouse near Metcalf Bottoms in the park. After traveling by cars, we hoisted our daypacks and set off on a walk back in time.

As we took a short walk along a shaded trail alongside a small branch, one of the children asked why we were walking to the school instead of riding in cars. I said we were pretending to be back in the 1880s when all the children in the area walked along similar paths in all kinds of weather to reach the schoolhouse. I also noted that many if not all of the

students were barefooted no matter what season it may have been.

Many of the early school sessions were indeed short and held in November, December, and January, when children were not needed in the fields to tend to or help harvest crops. I also informed them that many children walked more than 4 or 5 miles one way to attend school.

Once we arrived at the schoolhouse I related a brief history of the crude log structure and how people living in Greenbriar Cove had gone through hard physical work to cut poplar logs for the walls and make white oak shingles for the roof to

provide a suitable shelter for school and church use.

Inside the one-room schoolhouse were crude, uncomfortable desks where children sat from 8 to 4 each day. I related in some detail how the school day would have gone. Children recited their lessons to the teacher individually by grades since all grades 1 to 8 were there in the room together.

Many of the modern day children were amazed by the whole scene. How could the students see inside the dimly lit room with the only light coming in from small narrow windows? With oil lamps, I

replied. Where was the chalkboard (dry erase board)? I pointed to the back wall of the school where board had been painted black and said, "There is



the board for the teacher." Students used individual slate boards and slate pencils to scratch out written work. How was the school heated and cooled? In winter, a wood stove furnished

some heat, and later in the year as the weather warmed the windows could be opened to let in fresh cool air. By this time, I was getting lots of puzzled looks

from parents and children.

I know we all left there that day with a greater appreciation for our own modern classrooms, which are well-lighted, heated, and cooled. What I want to emphasize to all who read this is that those students of

long ago managed to learn and perform well in what little time they spent in school under rustic conditions. We can all learn a lot from them.

*—Mickey Larkins*

# From The Science Lab

*Bears, hellbenders, dragonflies, and campers*

Whew—what a summer! Trapping bears, snorkeling for hellbenders, netting dragonflies, identifying trees—and all in the name of science. Tremont was fortunate to have three Summer Youth Science Leadership interns this summer: Gar Secrist, Patrick Brukiewa, and Andrew Wilson. These positions were made possible through a generous grant from the Alcoa Foundation. Gar is a rising sophomore at Maryville College, Patrick is a rising sophomore at the University of Tennessee, and Andrew is a rising senior at Gatlinburg-Pittman High School. Gar, Patrick, and Andrew worked as field assistants this summer, taking part in several research activities at Tremont, including bird banding, tree identification, ozone garden monitoring, snake tin monitoring, and stream salamander monitoring. They also helped establish a new Citizen Science research project at Tremont, a terrestrial salamander monitoring program that will assess the abundance of salamanders in two different forest types (hard-

wood and Eastern Hemlock) at Tremont using artificial cover boards.

Tremont also hosted Carol Engebretson, an assistant principal at Central High School in Morgan County, TN. She worked 80 hours at Tremont as our ATBI Teacher Intern during our 10-day Field Ecology Adventure Camp. Carol taught moth identification and diversity and joined us as we went on a bear trapline (we helped the University of Tennessee graduate students capture 4 bears!), caught snakes at the Appalachian Highlands Science Learning Center at Purchase Knob, and explored an old-growth forest on the Boogerman Trail near Cataloochee. Carol will use her intern experience to help engage both students and teachers in field ecology and develop ideas of how to involve her own students in ATBI research in the park.

Tremont was fortunate to have the talents of Abby Hovis and Nichole Gaines this summer. Both Abby and Nichole were awarded the George W. Fry Co-Chair in Science Edu-

cation, a position created in memory of George Fry, a former Superintendent of Great Smoky Mountains National Park. Abby is an art teacher for an elementary school in Stoneboro, Pennsylvania and Nichole is an elementary school teacher in Greeneville, Pennsylvania. Both are pursuing a Master of Education in Environmental Education at Slippery Rock University. They used their gifts to develop unique programs for Tremont's summer camps, including having the students create a colorful mural at the River House and supervising the creation of a hanging copper sculptures that will decorate the Pavilion.

Our two Field Ecology Adventure Camps were truly adventurous—how many camps offer the opportunity to assist wildlife biologists in collecting data on black bears, use a radio antenna to search for box turtles fitted with small transmitters, and complete independent field research on a topic of interest? Students assisted park staff with restoration work at Andrew's Bald, snorkeled and

captured hellbenders for a research project headed by Dr. Freaque of Lee University, and learned how bat biologist Jenny Fiedler surveys for bats using mist nets and specialized equipment that allows humans to hear their high frequency calls that aid in identifying bat species. At our 10-day camp, the students worked in small groups to come up with a research project they could perform while in camp. One group decided

fish in pools versus riffles. After forming their hypotheses and collecting the data, the students then summarized and graphed their data on a spreadsheet and designed large posters on the computer using Microsoft PowerPoint to help communicate the results of their study. Using their posters as visual aids, the students then gave short presentations about their study to their peers and Tremont staff. This project



Field Ecology Adventure campers collect data on a black bear.

to compare stream salamander abundance and diversity at a stream at Tremont versus a stream at Purchase Knob, another group examined the role of ant colonies under snake tins in determining snake presence or absence, while the last group compared the abundance of cray-

immersed the students in each step of the scientific process, forced the students to think critically about what conclusions they could draw from their results, and revealed that science can be both engaging and fun!

—Jason Love

*Citizen Science Director*

## Insight

*continued from page 9*

closed, and their squirming minds trying to focus on their other senses, I talked them through a process of reflecting on their past three days and opening their senses to the world around them. After this exercise I could tell that their once-complicated view of the Cherokee's history was re-evoked with a more positive sense of understanding what the Cherokee had been through and where modern day Cherokee are today.

Here at Tremont we strive to bring about a sense of place, foster stewardship, and celebrate diversity among all participants who come to Tremont. Fortunately, Tremont is located in an ideal setting to execute these three objectives. Being home

to one of the most ecologically diverse national parks in the United States, a couple hours drive from the Eastern Cherokee band of Indians, and at least a ten hour drive for one-third of the population of the United States, there is nothing lacking from our present location that could set Tremont back from achieving these goals. Learning about diversity, however, is not limited to appreciating its positive attributes. It also applies to the diversity found in attitudes and views, both positive and negative. While it is sometimes uncomfortable to confront and talk about people's decisions and actions that have had negative, even tragic, outcomes, it is important that we do so. We need to reflect on those actions, mourn the outcomes, and then move on with the hopes of learning from past mistakes.

\* \* \*

An elder Cherokee Native American was teaching his grandchildren about life. He said to them, "A fight is going on inside me....It is a terrible fight, and it is between two wolves. One wolf represents fear, anger, envy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, pride and superiority. The other wolf stands for joy, peace, love, hope, sharing, serenity, humility, kindness, benevolence, friendship, empathy, generosity, truth, compassion, and faith. This same fight is going on inside of you and every other person too."

They thought about it for a minute and then one child asked his grandfather, "Which wolf will win?"

The old Cherokee simply replied..."The one I feed." (Unknown source)



# Looking Ahead

Upcoming events

Ahh Fall! The beautiful colors, walking on crisp leaves on a mountain trail. You have to come and stay a while to really enjoy it. Want an in-depth Smokies experience? Take one of the following events coming your way....

## Mount LeConte Overnight Fall Hike

*September 22-24*

Head to the highest point of the Smokies and spend the night at LeConte Lodge, the highest elevation lodge in the eastern United States. Friday evening is spent at Tremont, and then we'll head up the mountain the following morning. Along the way, our educational staff will share their knowledge of natural history, high elevation ecology, and science. While at the top, you will enjoy spectacular views, hearty meals, and a cozy bed.

Cost: \$350 (includes all meals, lodging, transportation, and instruction). Full amount is required for registration.

## Teacher Escape Weekend

*Sept. 29-Oct. 1*

Learn ways to prepare your students, help students get the most from their experience and bring the lessons back to the classroom. All of this while enjoying a beautiful fall weekend in the Smokies. There are wonderful opportunities for first time teachers to get to know the program as well as for returning teachers to share ideas, experiences and further their knowledge. Teacher Escape Weekend lasts from Friday supper to Sunday lunch. Teachers attending this workshop who bring a school group to Tremont during the 2005/2006 school year will have their \$50 refunded (at the time of their school group visit), and get to come free with their school group, and receive a discounted rate for their entire school visit!

## Women's Fall Backpack

*Oct. 20-22*

Ladies, this one is ONLY for you. Join our guides and experience the glory of the Great Smoky Mountains on a three-day backpacking adventure. We provide all the information, food and gear (except sleeping bag) for your excursion. This is a safe, educational, and enjoyable way to learn about backpacking in the Smokies.

Cost: \$225

## Chasing Light in The Smokies: Fall Photography Workshop

*Oct. 20-23*

Join us for the weekend as photographer Willard Clay shares the splendors of fall in the Smokies. Field sessions and lectures will cover the use of light, composition, landscape photography, close-ups, and how to find the "right" picture. An emphasis will be placed on digital photography, however all formats are welcome. The program will combine

natural history interpretation with photographic technique and is designed for intermediate to professional photographers. Program lasts from Friday supper to Monday mid-morning. This workshop fills quickly, so register early!

Cost: \$495

## Experience Cataloochee & Purchase Knob

*Oct. 27-29*

Spend the weekend on the North Carolina side of the park as you explore two very unique areas. Cataloochee, a beautiful valley located in a very remote section of the park. It is the site of the elk reintroduction program and some amazing history. Purchase Knob is located above 5,000' and consists of high elevation meadows and northern hardwood forests. The Appalachian Highlands Biological Science Learning Center is located at Purchase Knob. Participants in this track will meet at Purchase Knob on Friday. On Saturday we will hike from Purchase Knob to Catteloochee. Along the way we will explore several forest types, enjoy the fall foliage and old growth forests. Upon our arrival at Catteloochee we will have a picnic supper as we wait for the elk to move into the valley. We might even get a chance to hear the males bugle, one of the most amazing sounds in nature. After a great evening in Catteloochee we will drive back to Purchase Knob. Sunday morning will be spent learning about high elevation ecology and exploring "The Purchase". We will tent camp at Purchase Knob on Friday and Saturday. Tremont will provide tents or participants may bring their own.

Cost: \$210

## Experience Wild Rivers!

*Oct. 27-29*

Spend the weekend exploring several watersheds and comparing their rivers and land characteristics. We'll go from areas of high human impact to places that have been barely touched. This is a great chance to see different areas of the park and to get to some places that folks rarely go. Plan on lots of hiking over beautiful, challenging terrain.

Cost: \$210

## Experience Song of the Smokies

*Oct. 27-29*

Immerse yourself in the music of the Appalachian Mountains as we explore the distinctive history, songs, music, and instruments of this area. Make and learn to play your own lap dulcimer. Discover the roots of ballads, shape-note singing, and much more as you wrap the music of the Smokies around you.

Cost: \$210

## Experience Fall Potpourri

*Oct. 27-29*

Can't choose one subject? Do you want to do it all?

Well, this weekend we'll try. This workshop will encompass a variety of subjects such as plants, birds, salamanders, insects, a little history, and much more. This is a great way to introduce your self to the national park. Plan on woodland rambles as we study the ecology, flora, and fauna of the Smokies.

Cost: \$210

## Fall Adult Backpack: Grassy Balds Galore

*Oct. 27-29*

This great fall route will take you from Cades Cove back to Tremont. Along the way you will pass through Russell Field and Spence Field, two great locations for great views of foliage and mountain vistas. Cost: \$225

## Tracking and Nature Observation

*Nov. 10-12*

This weekend workshop will develop your skills to recognize and interpret the clues left behind by the wide variety of creatures that live in the Smoky Mountains. Explore animal sign, stalking and movement techniques, and nature awareness and observation skills. Much of the time will be spent exploring the park and interpreting what we find. Instructor Wanda DeWaard has been sharing tracking skills since 1983, and will be joined by several guest presenters. Program lasts from Friday supper to Sunday lunch.

Cost: \$210.

## Fall Adult Fly-fishing

*Nov. 10-12*

Learn all the basic information and skills you need to confidently approach the wonderful sport of fly-fishing both in the Smokies and at home. You will leave with a great sense of appreciation for the value of trout and cold water resources. Basic casting instruction will be provided along with ample casting practice. All the necessary learning equipment including fly rods, lines, and flies will be provided.

Cost: \$250

## Geology of the Smokies

*Nov. 10-12*

Join us for a journey back in geologic time. Led by Scott Southworth of the U.S. Geological Survey in Reston, VA, this exciting weekend adventure consists of informal talks and hikes throughout Great Smoky Mountains National Park. We will investigate the park's different geologic aspects as well as discuss the billion year old history of the rocks of the Smokies, with emphasis on the processes that are unique to this region.

Cost: \$210. One hour of graduate credit is available for an additional fee.

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