

# Walker Valley REFLECTIONS

The newsletter of Great Smoky Mountains Institute at Tremont • Fall 2007

Dear Parents,  
On behalf of all Tremont staff I want to thank you for sending your child to camp this summer. You are an integral part of making our summer programs a success.

Without you camp would never happen.

In light of your decision to share your children with us—and let us share nature with your children—please read the following quote, and as you do, guess what year it was written.

*“If parents realized the value to their children’s minds and bodies of a love for plants and animals, of any such hobby as birds or butterflies or trees or flowers, I am sure they would take more pains to encourage the interest which instinctively a child feels in these things. It must be because such realization is lacking that we see parents apparently either too indolent or too ignorant to share the enthusiasm and to satisfy the curiosity awakened in the child’s active mind by natural objects.”*

Did you guess 2007? 1967? 1937?

These words were actually written in 1899.

While calling parents “indolent” is unfair, let’s face it; calling *some* parents “ignorant” about nature is not. We *still* live in a culture that is alienated from nature. If it was true over a century ago, back before television, the Internet, and air conditioning, it’s even truer today.

But the good news is this: you chose to send your child to summer camp for a week rather

than have them entertain themselves at the mall. You chose to value real-life experiences in the outdoors, which involves some potential risks. You chose not to follow many parents who believe that good parenting means shielding children from the natural world inside a technological cocoon that starves the senses. Instead, you chose a far healthier and fulfilling path there’s ample evidence showing that

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## Thank you, PARENTS!



# From the Executive Director

As part of our 10-day Field Ecology Adventure Camp, science minded teens work on team research projects reflecting their interests. A highlight for many this summer was listening to these talented young people present their findings to a room of people including fellow campers and Tremont staff. Moths, snake, salamanders, beetles, worms and millipedes were the focus of their studies. Most of them were comparing data collected both at Tremont and the Appalachian Highlands Science Learning Center at Purchase Knob. They displayed their data and results through very professional looking posters with graphs, photos, and descriptions of their findings. We were impressed by their presentation skills and the work that they had accomplished in a relatively short period of time. Even more notable however was the fact that everyone present was interested and engaged, demonstrating an obvious interest in field science.

These presenters are teenagers who represent the typical range of attitudes and interests that are unique to that age group. Their common ground for 10 days was not so typical. Rather than Xbox games and iPod song lists, science and the biodiversity of Great Smoky Mountains National Park was their world and they were quite content with that. Being cool meant being excited about science, something that I'm sure few of them experience very often once back at school.

This is but one example of the experiences and opportunities that happened at Tremont this summer. Throughout this issue you'll receive other glimpses into the whirlwind of activity, wonder, and inspiration that our summer programs embodied. For those of you who have been to Tremont over the last few months, you know what I am talking about. To those of you who haven't visited for a while we hope you will come visit soon.

## Come home to Tremont— Be a part of the LEGACY

We frequently run into people who tell us that they came to Tremont as a student, summer camper, teacher, intern, staff member or even just dropped by as an interested visitor but have not been back and or weren't sure of how to get involved without attending a full length Tremont program. In an effort to reconnect with these various alumni the Legacy of Tremont has been formed and has been planning a variety of events and opportunities to reconnect. Please join us September 16th for our Legacy Homecoming and kick-off event. More details follow in this issue and or you can learn more by visiting [www.gsmit.org/legacy](http://www.gsmit.org/legacy).

**Save  
the Date!**  
**September 16th, 2007**  
**Legacy of Tremont  
Homecoming**

## Site and Facility plan update

In early October, the park will be conducting a Choosing By Advantages workshop concerning the alternatives that have been developed for our site and facilities. Shortly thereafter we should have a decision on the preferred alternative and be able to move forward with the next level of planning, design and fundraising. A great deal of work and



thought has gone into this process and we remain excited that our vision to develop our program, site and facilities to be a model of sustainable design, practice and instruction will become a reality.

## Transitions

Lois Tipton has been a faithful and committed member of the Tremont staff for 23 years as she has prepared countless meals for participants in our programs. Lois retired this June. She told us that she will be spending time on her porch with a good book but in a few months may check in to see if we need a little extra help. We wish Lois the best and already miss her cooking and sincere smile.

*Ken Voorhis, Executive Director*

*Gift certificates available!*

***It's not too early to begin your holiday shopping. Call (865) 448-6709  
or e-mail Tremont at [mail@gsmit.org](mailto:mail@gsmit.org) to learn how you can give your  
loved ones an educational treat right here at Tremont!***

# Girl Power!

*Teenage girls taking over the backcountry...*

*by Jen Martin*

There's a lot of pressure on teenagers these days. Their lives are full with school, sports, after school club meetings, pressure from friends, pressure from parents, keeping grades up to get into a good college, pressure to figure out where to go to college, what to major in,

*It takes guts to climb over mountains, especially when you are a 15 year old and you're carrying everything you need on your back.*

and how to pay for it. It is a lot for a young person to handle. Even more of a reason for them to get outside, and temporarily forget the stresses of their life.

This summer we had eight brave teenage girls join us for a four-day backpacking trip covering 30 miles in Great Smoky Mountains National Park. Many of them had never been backpacking before in their life, and were apprehensive about the trip. We spent the first day getting our gear together, talking about the proper way to pack, practicing Leave No Trace ethics, and getting to know each other. Everything was going smoothly, but I must admit, I was nervous about the dynamics of having an

all girl group (except for Josh Davis, the other co-leader). But that nervousness drifted away as we set foot on the trail the next morning, and all the girls were smiling and laughing with each other.

By the time we got to our campsite that day, we had already become a tight knit group. The girls were supportive of each other, and eager to learn how to survive in the wilderness. Conversations that night ranged from talking about books they were reading to which tree leaves were the best toilet paper.

There were some tough climbs over the next few days. It takes a lot of strength to accomplish what these girls did. Not only did they push their bodies, but they also pushed their mental



strength. It takes guts to climb over mountains, especially when you are a 15 year old and you're carrying everything

you need on your back. These girls were full of tough stuff. They looked out for each other, and expressed concern for each other. It was hard to imagine that a couple of days before these girls were perfect strangers.

We had several rewards along our trip as well. Splashing around in a waterfall was a highlight of one of the days. One night, we also got to experience a unique phenomenon. Our campsite was located near Elkmont, right at the time when the synchronous fireflies were at their peak.



We were tucked away in our tents that night and all of a sudden the dark sky lit up with these fireflies. Hearing the happy shrieks and squeals of the girls as this was happening around them was a pretty enjoyable moment.

The next day we hiked into Tremont. Their parents would pick them up soon, and everyone was running around getting each other's addresses to stay in contact. It is amazing what just a couple of days in the woods will do to a person. We had eight young ladies who learned how to feel comfortable in the outdoors. They learned how to relax with the sounds of birds and flowing water next to them. Their confidence level grew tremendously. What better way to learn independence than to rely on what you're carrying for a few days.

Backpacking, even if only for a short while, is one of the best ways to clear your mind and connect with the natural world. This October 26-28 will be a wonderful opportunity for women to bond with each other and this gorgeous national park during our annual Women's Backpack trip. We hope to see you there!

# An Expedition to Remember

by Dave Alleman

Late July marks the ending of the summer season here at Tremont, and what better way to finish up the season than to offer a camp for children to spend 11 straight days exploring their national park. A small group of 11 to 13 year-olds got the chance to spend three of those 11 days really getting to know everything around them. The All-Taxa Biodiversity Inventory (ATBI) is an ongoing program inside the park (as well as at numerous other locations across the country) in which people can help scientists find and identify all of the living organisms inside the park. After 10 years, the inventory has grown to over 12,000 identified species, and it is estimated that there is a total of 80-100,000 total species.

What does this mean to the youth attending summer camp at Tremont? This means an opportunity to participate in the ATBI and learn and identify new species of plants and animals: new to campers, and maybe even to the park or even for science! So far, ATBI has found 4,666 species new to the park, with 651 of those new to science!

Campers were provided tools necessary for finding and identifying trees, shrubs, mammals, reptiles, amphibians, fungi, wildflowers, and more. They were given three days to explore different areas of the park for this mini ATBI so that they may see the amount of diversity that there is in this small region of the southern Appalachian Mountains.

So, with backpacks packed with equipment and field guides and comfortable hiking shoes on, the campers set out to explore Great Smoky Mountains National Park. This included rambling around the Tremont area, finding and identifying close to 100 species of trees, animals, insects, and plants, including such animals as snapping turtles and the southern chorus frog. With other Tremont staff and

summer staff including Michael Matzko, Lisa Veniscofsky, and Mickey Larkins to guide and encourage them, campers also had the opportunity to experience Cades Cove during sunset as well as in the morning while birding. At the Cove, campers experienced stumbling across a fleeing coyote pup and spotting and identifying cedar waxwings and belted kingfishers, plus many more.

Following a morning of birding the campers next got out into the streams to find out why the Smokies are known as the salamander capital of the world. Here they found several different species of salamanders, such as the beautiful blue-ridge two-lined salamander, while also learning new species of mushrooms and trees. The day concluded with an evening hike to Tremont's beautiful Spruce Flats Falls where campers reflected on what they had seen and experienced so far.

For the third and final day of the mini ATBI, campers filed into the van for a ride up to the park's highest elevation at Clingmans Dome. At a little over 6,600 feet above sea level, it was a completely different world from what had been explored the first two days. A short hike to Andrews Bald revealed new types of trees and shrubs, and the view from the grassy bald was clear enough to reveal Fontana Lake to the south. The evening concluded with a group campfire during which the final species count of the mini-ATBI was revealed: 184 species of plants, animals, and insects. Almost 50 trees were included in this list along with over 60 wildflowers, ferns, and shrubs. Nearly 30 insects and spiders were counted, as well as roughly 20 other animals and more than 20 different kinds of birds. And what was the most enjoyable and rewarding part of the three-day experience? For the children, identifying a single answer to that question was the hardest identification of the whole program.

## Thank You, Parents!

*continued from page 1*

playing in nature improves children's cognitive development, increases their creativity, reduces stress, and helps them deal with adversity.

Now, let's be honest, sending your child to summer camp may also have given you a much-needed break from your teenager or pre-teen who talks back too much and gets on your nerves. Yet that's an equally valid purpose for summer camp to exist. The wisest parents are those who realize there are some things their child can only learn from other teachers. Camp is one of those teachers.

Parents routinely recognize the big and small ways in which their child has grown upon reuniting with him or her at camp's end. Special things happen in this magical, otherworldly place with its unique customs and traditions.

Still, it's odd to think that the people that are the most important part of the equation—parents and parental guardians—are the ones who don't experience it directly. It takes an awful lot of trust on their part to send a child to camp.

The rewards, however, are many. The camaraderie one finds here upon befriending complete strangers, many of whom one would not hang out with back in "real" life. The rich and widely varying experiences one lives in a single week that cannot be replicated in one's "normal" life. The closer connection one feels with nature after spending a week living inside a national park. The stirring emotions one feels on the last night of camp while sitting around a campfire with new friends.

And not to mention that catching a salamander in a mountain stream is just plain awesome.

Your child experienced all these things and more because of you. Someday they may be parents themselves and will remember what you did for them years ago as they make choices for their own children. It will be they, and their children after them, to whom we will someday entrust the great legacy of our national parks, wilderness areas, and the host of natural treasures that deserve protection. We here at Tremont believe these special places will be in good hands. Thank you, parents.

Sincerely,

Jeremy Lloyd  
Summer Camp Director

# Creatures of the Night

by *Emilee Mroz*

During my first experience with the Smoky Mountains Naturalist Expeditions, a summer camp experience for 11-13 year olds, I connected with children and nature in several ways I will never forget.

The Expedition that I was helping teach was entitled 'Secret Outdoor Skills,' or S.O.S. The main goal of this camp session was to get kids more comfortable in the outdoors, especially in lost situations where they may need to find shelter, water and take other safety precautions all on their own. Another powerful message that we wove into the Naturalist Expedition was that of Earth kinship and maintaining a deep respect for the planet that sustains us while gaining these practical skills for survival in the outdoors.

The first day was spent sharpening our observation skills and awareness of our surroundings. With blindfolds on, the campers followed the sound of drumbeats through the woods back to a central location, and hopefully realized the value of their other senses. One of the primary leaders of our Expedition, Wanda DeWaard, taught the entire group about the art of tracking and stalking animals, which is connected to moving skillfully through the woods. Practicing stalking can increase one's sense of movement and awareness. Being perceptive and aware when outdoors is an invaluable skill that, when honed in on, can change one's outlook on the natural world.

I certainly have gained a deeper appreciation and respect for the forests and rivers simply because I and all the children involved in the program were encouraged to really open our eyes and senses to the world around us.

For the first night of our Expeditions I planned a night awareness activity where the campers were immersed in the sights and sounds of the night. After our evening snack and with nothing more than our rain jackets upon which to sit, we ventured up the Buckeye Trail. We then gathered around and discussed the night. Of the eight campers in each group only a handful admitted to having spent time

outside at night in order to observe differences from daytime and simply enjoy the darkness.

We talked about why the dark is so frightening to people, the main reason being the lack of knowing and seeing. Since I planned this activity I was prepared to offer some possibilities for what might really be out and about during the night. For example, a rustling in the grass is very likely a small rodent out at night to avoid predators, rather than a scary beast out to eat little children. Instead of being frightened by unknown sounds at night a flashlight covered with red plastic wrap can work wonders to watch nightlife in action without being noticed. Most animals cannot see red light and so are not frightened when red light is shone in their direction; this tiny alteration to an item many people already have can open a whole new world of exploration and the chance to witness nature in action during later hours. Our final topic of discussion was on how to explore the night without getting hurt or lost.

As common sense tells us, our main concern at night is not being able to see as well as during the day. Thus, possible dangers that exist during the day are really the same dangers that exist during the night. Words of advice: Watch out for poison ivy and similar plants, try not to step on snakes, be cautious of cliffs, steep inclines, river crossings, and so on, which I hope most people keep in mind at all times anyway. Most of the campers were receptive to these concepts and it was encouraging to see some of their fears of night disperse. This was the main goal of the night awareness activity learn calmness and openness to the outdoors at night.

We spread out along the trail and gave the campers some time for their eyes to adjust to the falling twilight and open their senses to the sounds and shapes of night. As we were setting each child at a spot along the trail, Margaret, one of the campers, whispered to look up at a branch hanging above the trail. Sure enough, a tiny screech owl was sitting on the branch

and letting out low cooohs, singing a soft song to the night. Margaret, Halyse and I, the lucky ones to be so close to this creature, crouched low and watched the owl for as long as it stayed on the branch. I was glad to share such an intimate animal experience with two young girls who were just as awed by this small creature.

I, of course, made the motion that caused the owl to find another resting spot and apologized quietly to the girls. The disappearance of our little friend did not seem to bother the girls, as they moved back silently to their sitting spots and continued to listen and be aware of their surroundings. Later on I mentioned the experience to the two girls and we all agreed that the screech owl was one of the most adorable things we have ever encountered.

We closed our night awareness activity by playing with our night vision. While the kids covered one eye and stared at a candle flame with the other the counselors told the story of a greedy pirate who wore a patch over one eye in order to preserve his night vision one night when he knew of sailors planning on sneaking into his quarters. This pirate was also staring at a candle flame with one eye but, when he heard the sailors creeping into his quarters, he blew out the candle and switched his patch to the other eye and was able to clobber the sailors in the darkness. By covering an eye that has adjusted to the darkness while the other eye has lost its night vision the campers were able to see how incredible and effective human night vision really is; in fact, humans can see better in the dark than many wild animals including bears. When the candle was blown out we had the kids switch their eyes open and closed to discover the differences between a night vision eye and an eye not accustomed to darkness. Many of the kids could not believe this phenomenon and cried out in excitement.

I feel overall that the campers were very receptive to this entire nighttime experience that made them more comfortable in the outdoors in both night and day. I hope they will take this new understanding and comfort level of the darkness in the woods with them in the future, no matter where they are.

# Returning to Tremont

by *Laura Milligan*

Four summers ago, I discovered Tremont and environmental education as a summer intern. Before that summer, I didn't know that environmental education existed. I came to Tremont and discovered a life that I wanted. I found myself amongst people who saw the rewards of being in nature and protecting it. In coming to Tremont to connect kids with nature, I truly became connected myself. Tremont opened my mind and opened up doors for me to explore wild places even beyond the Smoky Mountains. From Alaska to the Outer Banks, working in the Rocky Mountains and the Sierra Nevadas, I have traveled to do what I was inspired to do here—connect people with nature as an environmental educator.

When it came time to choose an adventure for this summer, I was drawn to come back to Tremont. I wished to walk in wonder through rhododendron

tunnels and the green carpeted mountains of the Smokies. I wanted to look once more at the moon and the stars over Walker Valley. I had a desire to circle back to the place that initially connected me to wild places and guided me toward being a teacher in the outdoors.

Fortunately for Great Smoky Mountains and our world, I see this same connection nurtured in all the people who come to Tremont. Students of all ages come here to learn about this special place full of wonder and diversity. These students are inspired by exploring and discovering nature and realize that they are important to its preservation. Most importantly, they leave full of passion and stories to share with others beyond the national park's boundaries. Seeds of knowledge and understanding of the environment are dispersed from Tremont to towns all over the East.

I know the impact that Tremont has made in my life, but I can only imagine the great effect Tremont has created for every student who crosses that bridge over the Middle Prong. It is a force that keeps growing and will draw you back over that bridge to Tremont once again.

## Coming 2008: Tremont's Southern Appalachian Naturalist Certification Program

by *Amber Parker, Education Director*

The study of natural history, flora, fauna, geology, and their interrelationships, has declined over the last 60 years. What was once common knowledge, as well as a popular subject in elementary through college curricula, has fallen out of favor. Every year classical natural history courses in colleges and universities are being lost. Since WWII the emphasis in schools has shifted from natural history to technology. We also see a decline in the number of educators that have knowledge of basic ecological and natural history concepts. Along with the loss of general natural history knowledge, research also shows a decline in outdoor play and connection with nature amongst the youngest generation. Research now reveals the negative effects of this loss of connection to nature on the mental, emotional, and physical health of children. Sadly, there is now an entire generation of people that have little appreciable knowledge about their local flora and fauna (although we know that our program participants are the exception).

In response to the decline in natural history study in academia and society, Great Smoky Mountains Institute at Tremont has created a comprehensive education curriculum and

certification program focusing on natural history study in the Southern Appalachian Mountains. This program, called the Southern Appalachian Naturalist Certification Program, will be offered beginning in 2008. The main purpose of this program is to engage people in natural history study in the Southern Appalachians in order to further their appreciation and stewardship of natural systems. Although this program highlights the Southern Appalachian Mountains, and in particular, Great Smoky Mountains National Park its content is applicable to other habitats and locations. Through the Southern Appalachian Naturalist Certification Program, Great Smoky Mountains Institute hopes to create a corps of trained educators and volunteer naturalists that can bring natural history education to their local communities.

Most participants will be attracted to the Southern Appalachian Naturalist Certification Program because of the opportunity for continuing education. The certification program consists of a series of classes, both field and classroom-based, covering subjects such as

### *Southern Appalachian Naturalist Certification Core Courses*

The Role of a Naturalist

Interpretation: A Teachable Art

Southern Appalachian Ecology

Plants

Mammals of the Smokies

Herpetology: Reptiles and Amphibian Natural History

Aquatic Natural History

Birds of the Smokies

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# From the Science Lab...

by Jason Love, Citizen Science Director



George W. Fry

Thanks to funding from the Alcoa Foundation, Tremont was able to provide three summer youth science leadership interns with hands on experience here at Tremont. Read all about their summer learning adventures in four editions of their Friday Science Report available online at:

[http://www.gsmmit.org/programs/citizen\\_science/science-report.html](http://www.gsmmit.org/programs/citizen_science/science-report.html).

Tremont also hosted Joel Rudolph, Tremont's 2007 George W. Fry Endowed Chair in Science Education. This endowed chair was created in 2002 to honor George W. Fry who served as Superintendent of Great Smoky Mountains National Park from 1963 to 1969. Fry was an advocate of education in general and science in particular. Helen Fry, wife of the late George W. Fry and her daughter Georgiana Fry Vines visited Tremont on July 25th to meet this year's chair, Joel Rudolph.



Below you can read about Joel's encounter with trap-door tarantulas in the park.

## Do Tarantulas Live in Great Smoky Mountains National Park?

by Joel Rudolph, 2007 George Fry Science Chair

The answer to that question is yes, but not the big hairy one's that are made famous in some Hollywood movies or the one's that live naturally in the southwestern United States. Actually, the collar-door tarantula or most commonly called trap-door spider does exist within the park. Both the large tarantulas, and the native trap-door spiders are part of the sub-order Mygalomorphae. Mygalomorphae spiders are stocky with short, thick legs. Their body is sparsely covered with hairs, and they have extremely powerful jaws, and large fangs to catch and eat their prey. They strike with a hard downward stab, thus pushing their fangs into their prey releasing

venom to paralyze their prey for later consumption. Their jaws are equipped with many rake-like spikes in a row called rastellum, which is used for digging long, narrow burrows in the ground. They have a total of eight eyes, with a pair in the middle, and three on each side of their head.

Trap-door spiders range in size from 15-33mm long, and are either a tan or chestnut brown in color. They have two pairs of spinnerets, which are used to make two different types of webbing. One type of webbing is for wrapping up prey, whereas the other is used for lining their burrows. Their burrows, which are usually a few inches deep, are lined with

silk all over or just at the top of the burrow where the trap-door resides. The trap-door is camouflaged on the outside to resemble the substrate or ground above, in order to give the spider the element of surprise when attacking an unexpected meal. Some trap-door spiders open their trap-door at night and wait for vibrations in the vicinity of their burrows, before the surprise their prey. Whereas the females stay in their burrows for most of the time, males eventually leave their burrows when they mature to search for a mate. The trap-door spider occurs only in the continental United States, except for two species in Japan.



**Don't forget!** The 2007 photo contest, "Details," has begun.

Many entries have already been submitted. There's still plenty of time to get yours in. The deadline for submission is **October 10, 2007**.

For complete rules and information on how to enter, visit [www.gsmmit.org/photocontest.html](http://www.gsmmit.org/photocontest.html). **Good luck and happy shooting!**

# MAPS Season Summary

by Josh Davis

Tremont's seventh MAPS (Monitoring Avian Productivity and Survivorship) bird-banding season came to a close August 1st. The station saw 68 birds total, with 38 new birds banded (of 15 different species), 24 recaptured birds, and six birds unbanded.

The station saw both the expected and the unexpected this season. As usual, the dominant bird captured was the Louisiana waterthrush. However, our first session brought us a new species record for the station, a northern waterthrush, quite late in returning to its breeding grounds further north. We were



also able to capture a female belted kingfisher that had excavated a nest near one of our nets, the first banded at Tremont since 2000.

Some birds became quite familiar to us. Two Louisiana waterthrush individuals, both originally banded in 2006, showed up on the very first net run of the year, and would return to our nets often. The first, a male in his second year of life, was captured a total of five times over the course of the season, and always in one of three nets. The second, a female in at least her third year, was captured a total of seven times over the course of the season; again, always in one of three nets.

Louisiana waterthrushes are neotropical migrants they winter in Central America and northern South America. These two individuals left the Smokies last year, traveled hundreds of



Left: Northern Waterthrush; Above: Kingfisher

miles to their wintering grounds, where they spent several months, then returned to Tremont to appear again at our station, 11 months after having originally been banded. In the case of the male, he was caught for the first time this year in a net perhaps 20 meters away from where he had been caught as a juvenile bird the year before (the female only slightly farther away, about 200 meters). We've not seen either of them since mid-June—they may have already begun their journey south again. One can only hope that they will grace us with their presence again next year.

I love stories like this. It's one of the reasons I think bird banding is so exciting. Such stories are known only because of the unique knowledge afforded us by banding birds.

As this is my first year running Tremont's station, I'd like to give extra thanks to all those who made this yet another successful season! Special thanks also to the 47 volunteers of all ages who gave over a total of 20 hours of their time to assist with our bird banding project!

## 2007 MAPS Banding Summary

	New	Recaptured	Unbanded	Total
Louisiana Waterthrush	12	16	0	28
Carolina Wren	4	4	1	9
Red-eyed Vireo	4	1	0	5
Eastern Phoebe	2	2	0	4
Hooded Warbler	4	0	0	4
Ruby-throated Hummingbird	0	0	4	4
Acadian Flycatcher	1	1	1	3
Tufted Titmouse	2	0	0	2
Northern Cardinal	2	0	0	2
Black-and-white Warbler	2	0	0	2
Chipping Sparrow	1	0	0	1
Worm-eating Warbler	1	0	0	1
Northern Waterthrush	1	0	0	1
Northern Parula	1	0	0	1
Belted Kingfisher	1	0	0	1
<b>Totals</b>	<b>38</b>	<b>24</b>	<b>6</b>	<b>68</b>

## Tools for Discovery

by Jennifer Love, School Program Director

As I write and research for this article, I have “moved” my office to the shaded picnic table situated within gurgling distance of the Middle Prong of the Little River. Cicadas screech in the hot afternoon sun of late summer and green leaves rustle in the wind created by cool mountain air dancing with the warm. There is absolutely nothing difficult about getting children and adults excited about learning when you have all of this as your classroom. The thing is, that even as an indoor teacher, you can “move” your classroom to the outdoors and get your students excited about their own backyards.

Discovery has a huge impact on learning. As a child, I remember the first time I “discovered” how rocks are formed and from that point on my rock collection and my knowledge of rocks has grown. As a teacher, it was always the things that other students discovered that piqued the most interest; the bird's nest in a shoebox, the insect in a jar, the snake skin pinched between two fingers in front of an ecstatic face. These discoveries would provoke students to pepper me with questions and library books would flow into the classroom. The most unlikely of students would do Web research the night before and bring it into the room ready to share and it wasn't even assigned! Teachers know the power of demonstration, experimentation, inquiry and discovery.

I walk out my door and am greeted by fescue as far as the eye can see. The only interruptions to this green monoculture are the dusty patches of red clay positioned under each piece of playground equipment. How do you inspire discovery in this? Below are a few ideas and resources to help you if your schoolyard looks as mine did as a classroom teacher in the Piedmont of Georgia. Discovery can be everywhere!



Above: Micro-organism collector  
Below: Litter sifter

### Diversity Studies

Here at Tremont we conduct several biodiversity studies. Some of our studies compare organisms from field and forest habitats, some focus on specific groups of organisms, through our Citizen Science Programs, and most of these organisms can be collected using simple tools such as a litter sifter and beat sheet. The tools and activities below also make a great pre or post visit activities to your Tremont trip! Some ideas?

- Have your class come up with a hypothesis about which environment would host more diversity.

- Participate in one of Tremont's “Mini All Taxa Biodiversity Inventory” programs or “Citizen Science” programs (check out [www.gsmit.org](http://www.gsmit.org) for more information about our citizen science projects).

- Compare the biodiversity of the national park to the biodiversity of your schoolyard using some of the tools found on Discover Life in America's Web site (<http://www.dlia.org/>).



- Have students graph the findings from their schoolyard project and a Tremont project then compare and contrast the results.
- Write about the differences in the ecosystems and what they discovered.
- Take it home! Send the collecting equipment home and have students collect in their own backyards! Do the above and compare their backyard with the schoolyard.

### Schoolyard Discovery Tools

- Hand lenses/bug boxes—beware of the students who may try to fry their insects with the magnifying glass—you know who they are.
- Clear jars with lids (holes in lids for larger creatures and a fine mesh cloth (can be purchased at fabric stores) and rubber band for smaller creatures.
- Shovels/trowels—worm studies (information to come on our website)
- If you have a small stream or creek near your schoolyard you can use small fishnets purchased at pet stores to conduct a macro-invertebrate stream study.
- Beat Sheets—Using white or pale colored bed pillowcases, ask students to hold the four corners of the pillowcase under a tree or shrub. Another student can gently shake the limb and the organisms fall off the limbs and onto the pillowcase. It is good to have collecting vessels available to place specimens into for closer observation.
- Journals—have a schoolyard secret place where students can go and do nature observation through creative writing and sketching.
- Plastic spoons—great for scooping up those creepy crawlies!
- Litter Sifter—great for collecting small invertebrates
- Micro-organism collector—collect lichens or moss from your schoolyard and use this collector to see what emerges.

To find out how to make a simple and inexpensive Litter Sifter (no microscope needed) and how to collect Tardigrades, otherwise known as Waterbears, and other microscopic creatures, go to our Web site at [www.gsmit.org](http://www.gsmit.org) and click on School Group Adventures—Teacher Resources.

# Welcome Home!

by Meredith P. Goins

Tremont will host a Homecoming on Sunday, September 16 on its campus. Why? Because Tremont wants to reconnect with its alumni, the people who help make our programming possible in the past and for the future.

You probably know the term alumni in relation to school, college or university graduates. So what or who is considered an alumni of Tremont? We consider anyone who has donated, volunteered, served as an intern or employee, and of course program participants as our alumni! Considering we have served well over 100,000 people with in-depth residential experiences since 1969, and we serve another 5,000+

each year, our alumni group is big and getting bigger every year!

As a way to bring our alumni together, the Legacy of Tremont is hosting it's first special event, our Homecoming. This event kicks off at 5:30 p.m. with a reception featuring music by the Lost Mill String Band while a silent auction will take place as well. A buffet dinner including a pig roast and Southern Appalachian foods will be available beginning at 6:30 p.m. Elizabeth Rose will amaze us with her storytelling and afterwards, there will be fun and engaging science and natural history activities for guests.

Due to space, this event will only be available to the first 150 registrants, so

please reserve your seat today! Special thanks to the hard work of the Legacy of Tremont, a dedicated group of volunteers who believe in Tremont and will make this event successful!

During Homecoming, Tremont will present a calendar of upcoming hands-on events for alumni, everything from citizen science activities such as bird banding and monarch tagging to seasonal hikes led by Ken Voorhis and Amber Parker! Although you must reserve your place, these events are open to everyone!

To learn more about Tremont's alumni events, subscribe to Tremont's e-news by visiting <http://www.gsmit.org/newsroom/newsletters.html>. This bi-weekly email will keep you in the know of everything that is going on at Tremont!

As always, I appreciate any feedback and ideas you may have for supporting Tremont. Please contact me, Meredith P. Goins, Public Relations/Development Director at (865) 448-9732 ext. 24 or by e-mailing [Meredith@gsmit.org](mailto:Meredith@gsmit.org).

Keep in touch! And thanks for helping us connect people and nature.



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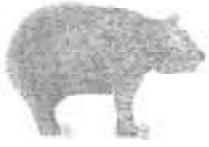
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# Looking Ahead

Check out some of the great programs just waiting for you this fall!

## September

### Teacher Escape Weekend

*September 28-30*

Teachers join us at Tremont for a weekend of fun, sharing and planning for your next school visit! This is a wonderful opportunity for teachers to get to know the programs and to learn from others how to make this the best experience possible for your students. Welcome to 500,000 acres of one of nature's most beautiful and inspiring classrooms!

*Cost: FREE with your school's scheduled attendance. A \$50 deposit is required but will be returned when you attend with your school.*

## October

### Fall Family Backpack

*October 12-14*

Enjoy the fall colors with your family on the trail! Tremont's experienced staff will take you and your family on a weekend of 5-8 mile rugged hikes and we even provide the gear (except sleeping bags)! This safe, educational and enjoyable way to learn about backpacking in the Smokies lets you reconnect with nature and each other.

*Cost: \$235/person. For ages 12 and up.*

### Autumn Splendor Weekend

*October 19-21*

Join us for a weekend of natural history study in the midst of autumn splendor. This weekend is designed for anyone that wants to get close to nature through activities that are in keeping with the naturalist tradition of careful observation, study and shared knowledge.

*Cost: \$220/person.*

### Fall Hiking Elderhostel

*October 21-26*

Discover the unique cultural traditions and rich biodiversity of the Smokies by hitting the trail! Watch the peak fall colors progress through the week while exploring these ancient mountains with daily hikes of 5-13 miles in length.

*Cost: \$475/person.*

### Chasing Light in the Smokies

*October 26-29*

Join us for a weekend of photography as Will Clay shares the splendor 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.

*Cost: \$520/person.*

### Women's Backpacking Trip

*October 26-28*

Come enjoy fall with a group of adventurous women on the trail and around the campfire! Join other women just like you in recharging your batteries while marveling at the natural wonders around you.

*Cost: \$235/person.*

All program costs include instruction, meals and lodging. Visit our Web site at [www.gsmit.org](http://www.gsmit.org) for further information on any of these programs.

### Volunteer Day at Tremont

*Saturday, November 10*

Come join us for our annual volunteer workday. 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 a.m. and go till about 4:00 p.m. Lunch will be provided for workers. Call Julie at (865) 448-6709, or email [mail@gsmit.org](mailto:mail@gsmit.org) for more information or to let us know you'll be there.

## Coming 2008: Tremont's Southern Appalachian Naturalist Certification Program

*continued from page 6*

ecological communities, flora and fauna of Great Smoky Mountains National Park, resource management, history of nature study, research methodologies, the role of the naturalist, interpretive training, etc. The core courses offered constitute an overview or "basic training" in Southern Appalachian ecology and interpretive techniques. These courses are intended to prepare participants for volunteering as natural resource educators as well as to enrich their lives through deeper knowledge of the Southern Appalachian mountains. Our hope is that this approach will involve many people in nature study and ultimately in sharing their knowledge and passion for natural history with others.

To become a Certified Southern Appalachian Naturalist, a trainee must complete all core courses in the Southern

Appalachian Naturalist Certification Program with a minimum of 90 hours combined field and classroom instruction. As this program grows and after completing the core courses the Certified Naturalist may extend their knowledge of Southern Appalachian ecology by taking advanced courses that will focus on particular topics in more depth. These advanced courses will be developed for the second year and as a follow-up of the Southern Appalachian Naturalist Certification Program.

Core courses will be offered as weekend or weeklong series throughout the year and may be taken in any order. The trainee may complete the program in as little as a year or over as long a period of time as necessary. Readings and pre-class homework will be available online. Core courses are developed to give a wide view of each topic, its key ecological concepts, skills and tools needed to study that subject, and basic resource management principles.

The details of this program (class dates, objectives, methods, etc.) and its application will be made available on our Web site over the next few months. In the meantime, email Amber Parker [amber@gsmit.org](mailto:amber@gsmit.org) for more information.

## STAFF

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Mike Matzko  
April Morris  
Mary Silver

### sr. teacher/naturalists

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Jen Martin

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Courtney Lix  
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**Program brochures are available by contacting our office:** [www.gsmit.org](http://www.gsmit.org) • (865) 448-6709 • [mail@gsmit.org](mailto:mail@gsmit.org)



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