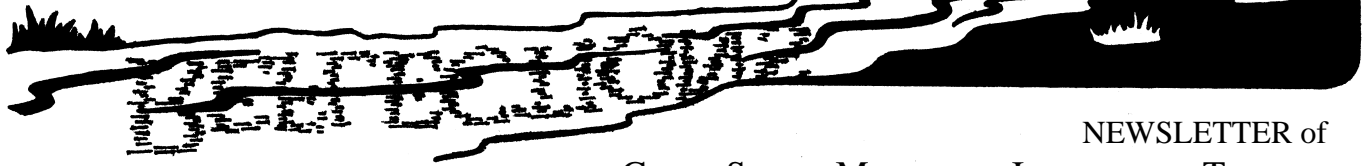


WALKER VALLEY REFLECTIONS



SUMMER 2001

NEWSLETTER of
GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT

SCIENCE EDUCATION AT TREMONT

So now Tremont also has a science research program. This is the response I got the other day after I had explained to someone what I do here at the Institute. They did not understand me. I am not the staff scientist, I am the "science education specialist" and my job is to create a "science/education integration program". Ok, what's that? Our problem may be that we have not found the right words for what we do. What we are trying to do is so much on the cutting edge that the words don't yet exist.

At the Institute, our job is "connecting people with nature". We try to do this many ways. For example, we connect through nature art during Environmental Education and the Arts. Our Tracking Weekend teaches us to connect by seeing and reading the stories in the natural world. We see nature through a viewfinder or the sweat of a backpacking trip. Our school programs and summer camps encourage children to connect with the world through exploration, discovery, and wonder. Above all, we connect people with nature by giving people the chance to live in the nature of Great Smoky Mountains National Park and to realize that we all live in nature even in the middle of the oldest cities.

As we are in the business of connecting people with nature, it makes sense that we should facilitate connections through science too. Our

participants have long heard about research from the teacher/naturalists and from the mouths of the actual researchers at times. But wouldn't it connect us better if we could watch the research in action? Or if we could use some of the same equipment and methods so we really know how research is done? Or better yet, if we can conduct the research ourselves—hands-on—and park managers and scientists use our results to understand and protect the park? What if we found a new species for the park or a new species to science? How connected is the student from Wydown Middle School in Missouri who found a new park record moth without a common name and declared it was "Jack's Looper Moth"?

"By involving people directly in these kinds of projects they develop a feeling of ownership and interest that it would be difficult to produce in other ways," says our director, Ken Voorhis. "We have the opportunity to get young people excited about science through this kind of hands-on and inquiry-based learning, with a by product of data that the student knows makes a difference to the way we understand and protect this park and our planet."

Getting students involved in science is actually nothing new to the Smokies. In Dorie: Woman of the Mountains, we learn that Professor Rose of the Cincinnati Museum came to Tremont to study botany in spring of 1933 and Dorie's young son



banding a kingfisher - science and education integration at work!

Charles “was very curious about him. When he wasn’t fishing, he was [visiting the professor] making a pest of himself....When school was out, he asked if Charles could go with him to collect flowers.” They went out collecting every day.

I got my own start as a teen up in Michigan when a professor agreed to let me help him study indigo buntings one summer. Who knew where it would lead?

“Imagine a place where science and education are combined to preserve and protect areas of national significance.” This is the opening line of a brochure about the new National Park Service Learning Centers. Learning Centers integrate research and educational activities to meet the needs of groups in national parks. “Imagine a site where parks are nurturing the next generation of scientists, educators, and the public that will guide future management and leaders through the 21st century.”

Great Smoky Mountains National Park was granted one of the first of these Learning Centers in 2000, to be based out of Purchase Knob in North Carolina. Deny Galvin, the Acting Director of the

National Park Service, recently pointed out that the idea for Learning Centers actually came from the Smokies’ own vision for the Purchase property which the staff at Tremont has helped to develop. Another example from the Smokies, the All Taxa Biodiversity Inventory has been a partnership between science and education from its very conception. We are truly the leaders of science/ education integration here in the Smokies and will continue to be for years to come.

Deny Galvin also emphasized in the same address that Learning Centers are not a location, but a way of doing our work. Here at Tremont, we have actually had a Learning Center before that name existed. We will continue to be a part of the larger Learning Center activities, both research and education, long into the future. It certainly makes me proud of what the students and I are doing.

Our friend Jeanie Hilton, now with Discover Life in America, writes, “In the search for ways to comprehend and care for the biodiversity of Great Smoky Mountains National Park, and by extension, the earth, the activities of scientists go hand in hand with the efforts of educators. The

excitement of the connection is people of all backgrounds coming together to see life anew, getting acquainted with the most obscure creatures and realizing their significance to our shared community, even before we fully understand everything about them.”

No, we don’t have a separate science program at Tremont. We’re still in the business of building connections. We’ve just found a new and exciting way of connecting people to nature, in addition to what we’ve been doing all along. We’ve only just begun to explore where this trail will lead us.

-Paul Super

TREMONT HAPPENINGS

TRANSITIONS

As another season comes and goes we have a number of staff moving on and new staff arriving. Karl Holoj is leaving us and will be heading to Japan to continue his study of Ninjitsu and teach English. Leigh Anne Milligan is moving to North Carolina where she is settling in to a new house. Aimee Wilson will be headed to her home in Kentucky where she will be working at Shakertown Village this summer. These folks are talented individuals who have contributed a great deal to Tremont over the past year or more. Thanks to each of them and the best in the future!

Summer staff will be arriving in late May as we make the jump between school programs and a summer collection of camps and

workshops. We are looking forward to having the following talented group of both new and old friends join us in helping connect people and nature this summer.

Summer Naturalists

Adam Barns Bethany Hanna
Mickey Larkins Jeremy Lloyd
Crawford Paylor Reagan Richie
Michael Vacek Karen White
Ryan Young

Summer Interns

Sarah Folzenlogen Rachel Jensen
Bradley Sale Kelly Stegall

Research Assistants

Meredith Jagger Erin Henegar

GRANTS SUPPORT

TREMONT SCIENCE

EDUCATION INITIATIVE

A grant from The Maryville Daily Times will assist two Blount county students in attending our summer science camp.

A donation from the Episcopal Church of the Ascension will assist two students from Knoxville to attend science camp.

A grant from Discover Life in America (the folks overseeing the All Taxa Biodiversity Inventory) will allow us to hire two high school students to work as research assistants this summer.

We sincerely appreciate these generous contributions and the support they show for this worthwhile initiative.

PRESIDENT BUSH VISITS TOWNSEND

Earlier this spring Townsend was the focus of a visit by President Bush to Townsend Elementary School as he spoke about his education plan. The fifth grade class who had visited Tremont earlier this year shared the platform with the President as he spoke to a small group of parents and educators from the area. Principal Fred Goins invited Tremont Director Ken Voorhis to represent Tremont and the Park at the gathering.

Ken was able to meet Bush and talked with him briefly about the work we are doing in Great Smoky Mountains National Park to educate people about our parks. Ken presented GW with a copy of our lesson guide ... connecting people and nature and then ripped open his shirt to reveal a tattoo exclaiming, "Don't drill in ANWR!" Well ... at least the part about the lesson guide is true and Bush seemed very interested in our work. He said, "It is important for kids to get out and learn about beautiful places like these and we need to make sure we get students from the inner-cities involved in these kinds of programs as well."

SCHEDULING FOR 2001 - 2002 SCHOOL YEAR.

Our schedule for the 2001-2002 school year has been filling since we opened reservations this January. If you know of a school that would be a good match for becoming involved in Tremont's school programs we would be glad to talk with them about our unique offerings. Tremont staff are available to visit schools to talk about our programs or conduct an inservice about connecting people and nature. To schedule a group contact Lainie Frye at mail@gsmnit.org or for more information or to set up an inservice contact Bill Klein at bill@gsmnit.org

COOKS ' CORNER

Many of our dedicated readers will notice that this is a repeat recipe. We've run it once before but since then, a whole new crop of people have discovered Tremont and our home-made granola cereal. Here again is our recipe. Play with it, add different flavorings besides vanilla. We've tried almond flavoring, banana flavoring, amaretto flavoring, and nutmeg. Have fun with it!

This has to be, by far, our most requested recipe.

TREMONT GRANOLA

1 24 oz bag rice crispies, 1 24 oz bag corn flakes, and 1 32 oz container of oatmeal, place in a container large enough to mix and bake flat in, add: 1 8 oz box unprocessed bran, 2 C. sunflower seeds (optional) set aside for now. On stovetop, add and simmer till completely mixed: 2 16 oz boxes brown sugar, 3T cinnamon, 1T vanilla, 2 C. honey, 2 C. oil. Pour mixture over dry ingredients when cooled. Mix well with clean hands (we have found utensils crush the cereal) then spread out evenly, bake in 350 degree oven until brown. The thinner you spread the granola mixture the crunchier it will be afterwards, the thicker you leave it, the chewier your cereal will be. After cooled, add raisins to preference and sesame seeds if desired. Note, after you have made this, if it is too sweet for your liking add less honey and add more if it is not sweet enough. NOTE: Oil and honey must always be in equal portions.

-Lori Flanagan



WHATS NEW WITH PARK SCIENCE: NEW SOILS DISCOVERIES

Anthony Khiel with USDA's Natural Resource Conservation Service reports that the NRCS team has found, and is describing as many as 20 new soil series in the Smokies. About half of the new soils are in the high elevations of the Park, which have never been previously mapped. Anthony has likened the discovery of new soil series to discovering a new species to science.

Soils may become differentiated due to the temperatures under which they weather, variations in geology, steepness of slope, and the long-term influences of the type of vegetation that grow on them, to name a few. Increasingly, many government agencies are concerned about the effects of the continuous deposition of acid precipitation on soils of the highest peaks in the Southern Appalachians.

Biologists know that, generally, as you proceed up-slope in the mountains here, the fewer species are encountered per area, BUT - as you go up the greater percentage of species that are endemics. Endemic species are those with very small geographic distributions, sometimes just a few square miles. The peaks of the Smokies are, from the work that has been completed so far, chock full of these species - plants, lichens, insects, land snails, even sub-species of vertebrates and (yes) "giant" earthworms - to name a few.

Some biologists would even go so far to say that the higher peaks of the Southern Appalachians biologically resemble islands, an archipelago of islands. All these species have at least one thing in common. They all depend on the unique soils that have weathered up there for thousands of years.

The Park's first soils map is due to be finished in 2-3 years.

-From Great Smokies Resource Management and Science update

ENVIRONMENTAL EDUCATION OUTCOMES

Environmental education has been growing, changing and maturing for thirty years. The resulting diversity of programs, activities, and approaches is significant and has initiated both criticism and praise. Environmental educators and those who support them have begun to ask hard questions like; What approaches are most effective? What are the long-term effects of our programs? How do we measure those effects? What are some standards for excellence in environmental education? As the field continues to mature more work is being done to answer these questions. Many of us who have been conducting programs for years have relied primarily on our instincts and intuition as to what works and what doesn't, and what the long term outcomes are. I believe that many of those instincts are sound but environmental educators are working to find better ways to measure and demonstrate that our methods are sound and their outcomes real.

In today's world where standardized tests and back to basics education is being pushed, the value of effective environmental education (EE) needs to be emphasized. Many of us have to work hard to justify what we are doing, whether it be running a full fledged nature center or EE program or merely using EE materials in the classroom or trying to gain support to take students outside or to a place like Tremont. The following are several resources that provide valuable support for what we do.

Several studies have been conducted recently that demonstrate that environmental education is an effective teaching methodology for improving students' overall learning. In 1998 Gerald Lieberman and Linda Hoody conducted a study of 40 schools in 12 states that used comprehensive environment-based programs with their students. A report was published by the State Environmental Education Roundtable entitled; **Closing the Achievement Gap: Using the Environment as an Integrating Context** (EIC). Their

What approaches are most effective?
What are the long-term effects of our programs?
How do we measure those effects?

report states "The observed benefits of EIC programs are both broad-ranging and encouraging. They include:

- Better performance on standardized measures of academic achievement in reading, writing, math, science, and social studies;
- Reduced discipline and classroom management problems;
- Increased engagement and enthusiasm for learning; and,
- Greater pride and ownership in accomplishments.

A follow-up report was published last fall by the National Environmental Education Training foundation to highlight the positive results that environment-based education has produced. The report showcases a collection of case studies from five schools, "that are using the environment to motivate students to learn, and bring new life and meaning into their school experience." The full report, **Environment-based Education Creating High Performance Schools and Students** is available in PDF format online at <http://neetf.org/pubs/NEETF8400.pdf>

The following are some of the findings as listed in this report.

- Reading scores improve, sometimes spectacularly.
- Math scores also improve.

- Students perform better in science and social studies.
 - Students develop the ability to make connections and transfer their knowledge from familiar to unfamiliar contexts.
 - Students learn to "do science" rather than just "learn about science."
 - Classroom discipline problems decline.
 - Every child has the opportunity to learn at a high level.
- One principal reported, "Kids make connections across disciplines. We believe this not only brings [learning] alive, but also reflects real life and allows students to do the kind of thinking that problem solving in the real world requires."

Another excellent resource for those of you who want to make sure that you are using the best practices in your environmental education programs was written by Bora Simmons, reviewed extensively by many of us in the EE community, and published by the North American Association for Environmental Education. **Environmental Education Guidelines For Excellence: What School-Age Learners Should Know and Be Able To Do** provides a set of guidelines for best practices and some good background that defines environmental education's goals and objectives.

It seems obvious to many of us that Environmental Education is not only effective but also critically essential. People can only make informed decisions about the world in which they live if they are environmentally literate. People also need to feel connected to nature, not separate from it. How we accomplish those things is no easy task but it is that challenge that has kept many of us engaged. I hope that our intuition can continue to guide us as we seek to prove it to be valid. As we work to measure, research, define, and justify we need to also remember to feel, sense, and observe.

-Ken Voorhis

SUMMER SIGNALS

Summer arrived last night riding on the backs of winged stars. I had come to the grassy fields of Cades Cove to enjoy the night sky with a group of students. As we stood still, the starlight danced around us, among the grasses, along the branches, indistinguishable from the tiny lights above in the firmament. But for the prickly feel of the grasses against our legs, we could have been floating through star-filled skies. On this night, summer had chosen to announce its arrival with a magnificent dance of light. The flurry of early summer pairing has begun and the fireflies are now signaling for mates.

light" which, when flashed, plays an important role in courtship and is the means by which the sexes recognize and locate each other. A female, who is most likely perched on or near the ground, will advertise her interest and availability to potential male suitors through a series of flashes. The number of flashes that she makes, their duration, and the length of the intervals between them are unique to individual species. The male, who is usually found flying in open areas, may emit a different but still species-specific response. Upon recognizing the correct code, the female will once again flash and the two will continue to flash back and forth until the male

Smoky Mountains National Park, is the ability of some species of fireflies to gather together in huge groups and synchronize their flashes. For a brief period during the summer months, fireflies gather at different sites in the park (most notably, Elkmont) and produce spectacular light displays. Some believe that this is done in an effort to create "beacons" that may be seen from far away by mate-seeking fireflies.

One disadvantage to relying on visual signals for communication and courtship is that, because they are so obviously displayed, the signals are vulnerable to being exploited by other firefly species.



Fireflies, or lightning bugs (family *Lampyridae*), are actually long, soft-bodied beetles. By the time they are seen lighting-up on summer grasses and trees, these beetles are at the end of their life cycle, having passed through three prior stages: as an egg deposited in damp soil, as a young larvae living underground for one to two years, and then as a pupa wrapped in a self-constructed mud house for about 10 days. When the adult firefly finally emerges, it has only a few days to a week to find a mate to insure reproductive success.

The light-producing organs of the fireflies are located near the hind end of the abdomen. These "tail lights" produce a yellow-green "cold

has located the female.

Communicating through the use of visual signals is not uncommon in the natural world and holds certain advantages. For example, visual signals can be quickly turned off and do not leave any lingering clues for potential predators. Visual signals also offer the potential for complexity of meaning through subtle variations. As a result, fireflies have available to them an immense vocabulary stemming from a few permutations of controllable factors, such as flash color, body posture, movement, and flash tempo and sequence.

Of particular interest, especially for scientists here in Great

And, in fact, some females can mimic the signals of other species in order to attract the males of that species, which they later devour.

Although several other organisms are luminescent (including ground beetles, click beetles, some midges and springtails, fungi, and bacteria), scientists have been most interested in the firefly's light-producing ability. In the firefly, a complex chemical reaction between two organic compounds (luciferin and an enzyme, luciferase) in the presence of oxygen converts chemical energy to light energy. This reaction is amazingly efficient. About 98 percent of the energy involved is released as light. Almost no heat, a

useless byproduct, is produced. In contrast, a far less efficient incandescent light bulb produces very little light for the amount of energy expended, yet releases enough unwanted heat to burn your hand.

In addition to being efficient, the light-producing chemicals in the firefly have medical significance. Scientists have found that the firefly chemicals are sensitive to changes in living cells and, thus, have been used in the study of heart disease, cancer, muscular dystrophy, cystic fibrosis, and antibiotic testing. Special electronic detectors, using firefly chemicals, have also been placed in spacecrafts to look for earth-life forms in outer space. Despite their steady efforts, scientists have been unable to produce these chemicals synthetically and have, instead, been harvesting the chemicals from the fireflies themselves.

The Aztecs used the term firefly metaphorically, meaning a spark of knowledge in a world of ignorance or darkness. For scientists, perhaps the fireflies do hold some sort of magical knowledge in their chemical ability to detect living cells and life. But for me, standing in the fields on this star-swept night watching their lovelorn messages from the grass, the fireflies were signaling with careful urgency the need to pursue our passions in the brief time given.

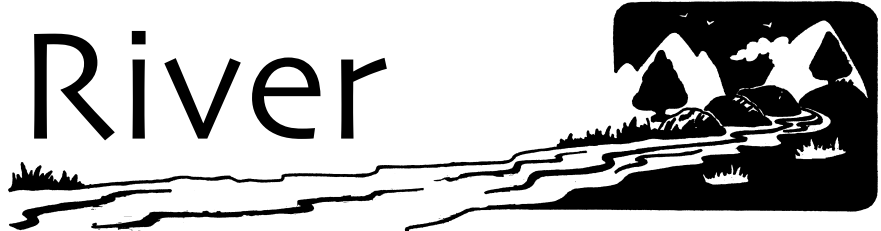
-Leigh Anne Milligan

1 *The Practical Entomologist*, by Rick Imes. Simon and Schuster: New York, 1992.

2 *The Handy Bug Answer Book*, by Gilbert Waldbauer. Visible Ink Press: New York, 1998.



River



creations from this year's EE & the arts workshop

River swift, river slow
Through the mountains you flow.
Through the foothills, pastures green,
What rich history have you seen!

Flowing, winding, running free
Cascading waters cover me, cover me
Quench the longing in my soul
Embrace me, soothe me, make me whole.

- Mary Beth Mackley

The River Speaks

'Quiet your mind and I will speak to your heart. Now is the time to let go your past. Be at peace: Now. Love now. You are one with all life. Now. Quiet your mind listen with your heart.

Now! The river speaks.

- Joy Coursey

Earth, being a system, means there will never be any more or less water on this earth than when it first existed.

If all the water on earth was represented in a one cup measure, only one teaspoon of that cup represents water we can drink, bathe in, wash clothes and cook with. The rest is salty ocean waters, glaciers or ground water way down deep. Freshwater rivers are the lifeblood of the universe.

- Pam Bowker

I am the river. The river is me.
The river is my legacy to my child from me.
I am the river.

River to river, to lake to river, to river to sea.
Cover, absorb, into rock-tree-life-death-air-fire me.

I am the river. The river is me.
The river is my legacy to my child from me.
I am the river.

Adventure-life/death-the river is me
My legacy, my child, me. I ponder, exist, am, osmosis's, wet

-Albert Bauman

Life is a flowing river.

I am a vessel journeying
through the swift current,
maneuvering my way through
each new challenge the river
presents.

Some sections of my journey
easier than others. It's a mind
game you know,
a mental challenge. How will I
execute as I travel this course
of life?
From one moment to the next,
unsure of what lies around the
next bend.

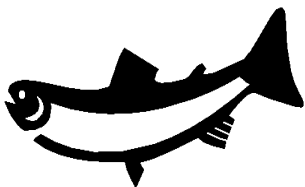
Is there calmness, chaos,
peacefulness, turbulence,
serenity, or gnarly holes,
and 15 ft drops.

Sometimes I find myself in a
fast moving current, out of
control, unsure of which
route to take. I eddy out—
process—wait for the right
moment to cross the eddy line
and continue on with confi-
dence.

I sometimes find myself enter-
ing turbulent, recirculating
holes, spinning, tuming
and churning out of control.
Hanging on..waiting for the
right moment to be released
and let go. Flowing peaceful
now, in silence for the
moment.

Until I flow through the next
series of rapids, ready to ac-
cept and face life's
New challenges.

I keep my vision—I look for the
downstream V's and I punch
the holes!



-E. Rose

River

(all group poem)

Your flow Your peace
Your music
Unexpected change
Your Excitement
Beautiful gift from God to us

Rush down the mountain
Soothing sound
Drown out our human worries
Bring us peace sustaining life

Spiral of light and energy
Sing to me river
Love me share with me
Respect me

We are all of one blood
Made by one creator
As the roaring raindrop
Many are gathered

Running free
Watching the raging river
Forceful stubborn
Unyielding rocks
How hard it must be

A leaf meets no resistance
travels, floats peacefully
We go with your flow of life

Long haired lady
Rushing, roaring
Truth teller, older than life
itself
As old as love

Fast Furious
Who are we to conquer or
control your power
Connection
Sitting two days ago
The river was full of sunshine
Bubbly, frothy
Today darker
Stronger moodier

In these two days
We too have changed

Chiseling, tugging
Surging
Quiet your mind
I will speak to your heart
Strength hanging in there

Its his river
River is H2O
H2O gives life
Life is mine
Mine is his river

Lifeblood of the universe
We're a vessel on a journey
Maneuver each new challenge
Waiting around the bend
This river
Like a chanting Buddhist
Confidence
Connection
Share with us your dance

- by all gathered on Sunday
morning

*Come to the river, my children
As the river smooth stones,
Let the river smooth hate and
Fear from your heart.
There are no gangs here.*

*Come to the river, my children
As the river flows in branches
Let the river clear your mind
There are no drugs here.*

*Come to the river my children
As the river makes her music
Let the river turn your anger
TO joy. There are no guns here.*

*Come to the river, my children
As the river grows green on her banks
Let the river plant a seed in your heart
There is hope here.*

- Sarah Hoyle

A WALK INTO THE WOODS

"When I return from any trip to the wilderness, it is always a shock to hear the sounds of civilization, it happens so fast it is like I had walked into a different world. When it is more than I can take, I walk into the woods to recapture what I had left behind." Sigurd Olsen wrote these words. They are a reminder that although we might long for a lengthy sabbatical, away from it all, that pausing amidst the hustle and bustle of our busy lives and reconnecting in some small way with the natural world can provide a healthy dose of refreshment. There are days when a short walk or quick exploration is all I need to help me regain a sense of place and peace of mind.

Yes, I am fortunate to have the Smokies at my back door. Too often though, I find myself at the end of a busy week having been so caught up in meetings, correspondence, planning, and other administrative tasks that I've not taken the opportunity to enjoy the amazing place in which I work and live. A grievous error no doubt, that I try to remedy whenever possible. On a recent evening I was feeling particularly cluttered, unconnected, and in need of a good walk.

Thoreau wrote a wonderful essay called "Walking" in which he describes the appropriate attitude for therapeutic walking of this kind. He writes, "I have met with but one or two persons in the course of my life who understood the art of walking, that is, of taking walks—who had a genius, so to speak, for sauntering He who sits still in a house all the time may be the greatest vagrant of all; but the saunterer, in the good sense, is no more vagrant than the meandering river, which is all the while sedulously seeking the shortest course to the sea."

My early evening saunter quickly took me off the trail, as these walks often do. I'm drawn toward the less familiar, the road less traveled, to see what is over that ridge, up that hollow, or across that meander in the stream. They are perhaps more explorations than walks. After

climbing a ridge and being startled by a particularly large water snake who seemed like me, out of place and probably just as surprised, I moved through a tangle of mountain laurel in full bloom. Following a well-established game trail, I crossed a fallen and weathered pine log on which I noticed the scratches from a bear who sometime earlier followed this same path. As I emerged from the thicket I heard a familiar and welcome call, a hooded warbler, one of my favorites. Her full and solid whistle seems to me to say "What the heck are ya doin!". Although I had been hearing this bird for the past month or so, I had not yet caught a glimpse of one this spring. I have more than once stalked these secretive birds as they flit amongst the tangles of laurel and small hemlocks and more often than not without getting a good look.

I decided to sit on another fallen pine, a large one that the pine bark beetles had felled. I decided not to stalk this mischievous recluse but to wait and see what came to me. The river rumbled below as Carolina wren, ovenbird, indigo buntings and the hooded warbler and friends sounded about me. A bird flew to the top of a pine snag but I couldn't see it in the sun. A scarlet tanager then called out and guessed that was who it must be. The smell of hemlock, pine, and laurel hung rich, having been brightened by an earlier rain and probably enhanced as I breathed deeply, my heart rate slowing and sweat cooling after a vigorous climb through the thicket. I was then startled as I heard the heavy *phuff*, *phuff* of wings and a pileated woodpecker flew across my log. This old friend often reminds me of a lesson I learned about such excursions when I was in college. In those days I was doing a breeding bird survey that required me to survey the same section of forest every day. It was a beautiful old forest and I welcomed the chance to get away from other work, but there

were days when it was raining, there were many other things to do, or other fun to be had and I headed out more from duty than because I wanted to. The pileated often surprised me on those days. The lesson - If you get out there you will be rewarded. I was thankful for the reminder from this old friend.

Soon the hooded warblers were dancing about on both sides of me but still not giving me a look. And then, perhaps another lesson about waiting patiently, there was movement in a nearby hemlock. The tiny bird with yellow face and black hood showed itself, craning its neck and looking at me with a curiosity and then yelling "What the heck are ya doin!" The hooded warbler came within eight feet and put on a show. She seemed as interested in inspecting me as I her. One of the better views I've had of this lively bird and I didn't even have my binocs with me. I thought, "Thanks, I needed that."

I clambered down from the ridge feeling more a part of the mountain than apart from it. That is why I went out. I was reminded once again of the importance of the work we do at Tremont, of why I am here and why the day to day busyness is worthwhile. I went out and I was rewarded and it only took a short while. Giving people opportunities for these kinds of experiences with the mountains is what parks and Tremont are able to encourage.

In Thoreau's "Walking" he writes further, you must walk like a camel, which is said to be the only beast which ruminates when walking. When a traveler asked Wordsworth's servant to show him her master's study, she answered, 'Here is his library, but his study is out of doors.' These explorations clear my head and help me to ruminate on my priorities and put things into the proper perspective. I vow to myself to spend more time in "the study."

If you can get to the mountains this next season do so. Stop by Tremont and spend some

time on a river rock or under a giant hemlock. If you can't do that, venture out close to home. As Sigurd suggested, "wander into the woods to recapture what you've left behind." Get out and you will be rewarded. Enjoy the summer!

-Ken Voorhis

A challenge to fellow explorers: Throughout Walker Valley I have placed at least four log books in special places. Not for the faint of heart, in places easy to find, or to be sought out without proper experience, equipment, and help, the books provide clues to the other places and pages for added ruminations. If you're curious, willing, and able ask me for a clue.



NATURALIST WEEKEND

Blue skies and warm weather welcomed the participants for the recent Spring Naturalist Weekend. Fifty-six people from fifteen states arrived on a Friday for a weekend of information and revelation about the natural history of the Great Smokies. Most participants took part in the Naturalist Weekend, an opportunity to attend workshops on a variety of subjects; while a group of hearty individuals participated in the Black Bear track, a weekend of intense study of black bear ecology.

Naturalist Weekend participants were busy from pre-dawn until well after sunset. We were up early for the dawn chorus of bird song, learning the difference between the "Weet, a, weet, a weet-e-o" of the Hooded Warbler and the "Sweet, sweet, sweet, swisher-sweet" of the Yellow Throated Warbler as well as a many other species of birds. A stealthy group night-hiked to study the small, woodland "Ghost" fireflies that cast their faint green light over the dark mountain. Several people were all wet after snorkeling in cool mountain pools to identify fish species or doing aquatic ecology studies of the Little River Watershed. Searching for salamanders, gardening for wildlife, rambling with naturalists, all gave us a sense of the spectacular diversity of the Smokies.

Participants in the Black Bear Ecology track used shank's pony (foot power) to traverse a wild area of the park in search of bears, dens, and signs. We found the den and plenty of signs but the bears eluded us. However, gaining in-depth knowledge of how the bears are studied, their habits and ecology made up for the lack of bear sightings. Participants left with a tremendous amount of knowledge and respect for *Ursus americanus*.

Naturalist's Weekend was a weekend to remember as attested by one of our participants;

"My spirit was fed, my mind was stimulated. I cam to Tremont with expectations of nature and relaxation. I leave with inspiration and ready to come back!"

Check out the upcoming events on the next page and consider joining us for an adventure!

-Amber Parker

SMOKE SIGNALS

A feature especially for teachers bringing groups to Tremont.

Spring is here and summer is just around the corner. It's as green as green can be here at Tremont. We just had two schools from Florida spend a week with us in late April and one wants to come back next year in January! They said it was too warm! Well, we have had an eventful school year with everything from kids searching for snail shells as part of a park research program to students tagging snapping turtles in Cades Cove. This makes me ponder the possibilities for next year. We have many new exciting science activities that can be incorporated into our lessons. I will be sending out a supplement to our schedule request form that has these opportunities listed. If you have a need for more science in your Tremont trip please let me know.

If your school is coming to Tremont in the fall of 2001 you will be receiving the Tremont User Guide as well as other information to help you plan your trip. Teachers that will be bringing their students in September or early October will be receiving the packet either late May or early June. There is a possibility that you will receive it at your home address depending on when your school lets out for the summer. Teachers that will be bringing their schools in mid-October or later will be receiving their packets in mid to late August.

Keep in mind that we have Teacher workshops in the fall that will give you a break in your fee for coming to Tremont and are a great way to get inspired with new and innovative activities for your students or for yourself. See the Looking Ahead section of the newsletter.

We look forward to the upcoming school year and working with you to meet the needs of both you and your students, but for now take a break and give yourself a big ol' pat on the back for a job well done. You know the work that you have done will have a lifelong effect on the children whose lives you have touched. It's summer time!

LOOKING AHEAD

Why not join us for an upcoming experience at Tremont!

See our brochure, webpage: www.gsmit.org or call our office for more details.

There is still space in some of these summer programs!

WILDERNESS ADVENTURE CAMP JUNE 25 - 30, JULY 2 - 7 cost\$300

NATIONAL WILDLIFE TEEN ADVENTURE, JULY 16 - 26 cost\$710

DISCOVERY CAMP, JUNE 18 - 23, JUNE 25 - 30, JULY 2 - 7 cost\$240

NATIONAL WILDLIFE RANGER RICK CAMP, JULY 16 - 26 cost\$680

Schedule now for these other upcoming programs

RESOURCE MANAGEMENT ELDERHOSTEL AUGUST 5 - 10

Discover the secrets of the Smokies while assisting scientists striving to understand one of the most diverse areas on the planet. Participants will take part in monitoring and inventory projects, which may include counting salamanders, identifying moths, mist-netting birds, archaeological digs, or identifying plants. Days will be full of adventure and discovery in the park and nights will be full of Appalachian music, tales, campfires and fun. Program lasts from Sunday supper through Friday breakfast. Cost \$345. Information and registration materials may be obtained through: ELDERHOSTEL, 75 Federal St., Boston, MA 02110-1941 (877) 426-8056.

TEACHER ESCAPE WEEKEND SEPTEMBER 21 - 23

Teachers, prepare for your school's trip to Tremont by spending this inspiring fall weekend in the Great Smoky Mountains National Park! Sessions will familiarize teachers with the ecology and issues of the Great Smokies, and concentrate on planning and preparing for your group's visit. Program lasts from Friday supper to Sunday lunch. Cost: \$130. One hour of graduate credit is available for an additional fee.

FALL HIKING ELDERHOSTEL SEPTEMBER 30 - OCTOBER 5

Discover the unique cultural traditions and rich biodiversity of the Smokies by hitting the trail! Our staff will lead you on an exploration of these ancient mountains with daily hikes through breathtaking scenery. Hikes will be 5 to 13 miles in length, making this program strenuous. In the evenings, enjoy a fine meal at the Institute followed by Appalachian music and tales, programs on mountain wildlife, or campfire stories of the Cherokee. Program lasts from Sunday supper through Saturday breakfast. Cost \$345. Information and registration materials may be obtained through: ELDERHOSTEL, 75 Federal St., Boston, MA 02110-1941 (877) 426-8056.

FALL NATURALIST WEEKEND OCTOBER 12 - 14

Autumn is a magical time of color and change in the "Place of Blue Smoke". Spend a weekend studying the natural and cultural history of the park with a special focus on the Cherokee, as special guests share their culture, philosophy, language, stories, and crafts. Explore topics such as edible and medicinal plants, tree and shrub identification, birds, earth skills, games, and stories. Program lasts from Friday supper to Sunday lunch. Cost: \$140. One hour of graduate credit is available for an additional fee.

Be a Friend of Tremont

At Tremont user fees pay for a significant percentage of our operation but to accomplish what we want to and to become a world renowned learning center we will need your help.


You can give in several ways:

SCHOLARSHIP FUND

\$125 can provide a scholarship for a child to attend Tremont with their school

\$300 can provide a child a week at one of our summer programs

\$600 can provide a child who has interest and abilities in science to attend our 2-week Science camp where kids are involved in park research projects

more 

ANNUAL FUND :

Help provide yearly operational support of our programs and new initiatives.

Friends cont.

ENDOWMENT :

Contributions to our growing endowment will provide scholarships and support needs at Tremont into the future.

For students who have been shut up in classrooms for all their lives this is best thing that ever happened. Tremont gives children chances to learn things outdoors that they never had a chance to before. Teachers also have the opportunity teach students the importance of things they may have never experienced before or even thought about before. It provides a unique opportunity to live in and learn about national parks. Many important things are taught here that are not found in books.

- Miss Elsie Burrell

Designate which fund you would like to give to and send donations to:

GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT
9275 Tremont Rd. Townsend, TN 37882
865-4548-6709 mail@gsmiit.org website: www.gsmiit.org

GREAT SMOKY MOUNTAINS INSTITUTE
AT TREMONT
PROGRAM REGISTRATION FORM

Please fill out a separate form for each person
registering.

NAME (as you want it on your name tag)

ADDRESS _____

_____ ZIP _____

PHONE _____

e-mail _____

age (if under 18) _____

Program title

Program date _____

Amt. enclosed _____

Return to: GREAT SMOKY MOUNTAINS
INSTITUTE AT TREMONT
9275 TREMONT ROAD
TOWNSEND, TN 37882
or fax to: 865-448-9250



To register by credit card call: 865-448-6709

Minimum deposit for a three-day program is \$50, and for all other programs is \$100. The balance is due 60 days prior to the program. Cancellations received in writing 60 days prior to a program will receive a 75% refund. Cancellations received less than 60 days prior to the program will not be refunded.

DONATIONS

Thanks to all of the following !

FROM 2/17/01 TO 5/15/01

Financial Contributions

Broward County Audubon Society
Church of the Ascension
Edwin Dale Robert Dowbiggin
Nancy and Wallace Ervin
Friends of Great Smoky Mountains National Park
Great Smoky Mountains Natural History Association
Bill Jacobs Wilbur and Jane Logan
Maryville Orthopedic Group Orion Soccity
Patricia Twilla

Other Donations

Elizabeth Rogers
SAKS

Volunteer Work

Robert Dowbiggin Robin Goddard

Science Research Volunteers

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Jessie Breedlove Chris Buckner Maggie Edwards
Steven Gomez Adam Heinrich Amanda Heinrich
Tanner Jessel Krystal Keller Brian Kincaid
Teddi Kreutzberg Courtney Lix Cari Ramsden
Evan Reed Bill Sherman Chris Sherman
Steve Sherman Woody Voorhis Becky Walton
Cody West

Contributions to the Endowment Fund

FROM 2/17/01 TO 5/15/01

*in memory of Christine Clark and Craig Clark
Betty Voorhis*

GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT

GREAT SMOKY MOUNTAINS INSTITUTE
AT TREMONT

IS OPERATED IN COOPERATION WITH
GREAT SMOKY MOUNTAINS NATIONAL PARK

PROGRAM CALENDAR

	STAFF	
<i>teacher/naturalists</i>		<i>food service</i>
Karl Haloj II		Sam Crowe
Jennie Lee		Jackie Davis
Leigh Anne Milligan		Lori Flanagan
Aimee Wilson		Billie McCarter
<i>international intern</i>		Lois Tipton
Anya Marysheva		Sue Tipton
<i>sci/ed specialist</i>		Toni Vann
Paul Super		<i>grounds and facilities</i>
<i>sr. teacher naturalists</i>		Sean Flanagan
Jason Barschdorf		<i>registrar</i>
Charlie Muisse		Lainie Frye
<i>school program director</i>		<i>sales</i>
Bill Klein		Linda Vananda
<i>special program director</i>		<i>office manager</i>
Amber Parker		Kathy Burns
		<i>executive director</i>
		Ken Voorhis

BOARD OF DIRECTORS

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JUNE
 10-16 GRANDPARENT/GRANDCHILD ELDERHOSTEL
 18-23 DISCOVERY CAMP 1
 18-23 WILDERNESS ADVENTURE CAMP I
 25-30 DISCOVERY CAMP 2
 25-30 WILDERNESS ADVENTURE CAMP 2

JULY
 2-7 DISCOVERY CAMP 3
 2-7 WILDERNESS ADVENTURE CAMP 3
 9-14 NATURALIST EDUCATOR WEEK
 9-14 NATURALIST HIKING WEEK
 16-26 NWF WILDLIFE CAMP (& EXPLORERS -12)
 16-26 NWF TEEN ADVENTURE 1
 16-26 HIGH SCHOOL SCIENCE PROGRAM
 30-AUG 4 NATURAL RES. COLLEGE CONSORTIUM
 5-10 Elderhostel -resource management

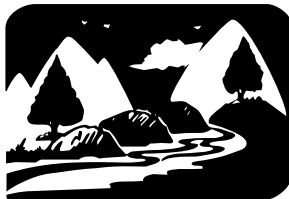
SEPTEMBER
 21-23 Teacher Escape Weekend
 30 - Oct 5 Fall Elderhostel - Hiking

OCTOBER
 12-14 Women's Backpack
 12-14 Fall Naturalist Weekend
 19-22 Autumn Brilliance Photo Workshop
 19-21 Fall Adult Backpack

Contact us for information on any program.
Information is also available at our website:

www.gsmit.org

E-mail us at: mail@gsmit.org



GREAT SMOKY MOUNTAINS INSTITUTE AT TREMONT

Great Smoky Mountains National Park
9275 Tremont Road
Townsend, TN 37882

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