

THE REGISTER

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A Stewardship Newsletter

for the Appalachian Trail

Spring 2001



Grants Deadline Announced

The deadline for ATC's two grant programs, Grants to Clubs and Grants for Outreach, is July 15. Applications from Trail-maintaining clubs will be considered at the November Board of Managers meeting, and awards made early next year.

The Grants to Clubs program matches club contributions for new public-service projects, helps clubs enhance volunteer efforts, activities, or membership, helps them meet unusual, one-time financial needs, or helps them increase public awareness of the Appalachian Trail. Other projects also may be considered, based on their individual merits. L.L. Bean, Inc., underwrites this program, with additional support from the Mark Sperling Memorial Shelter Fund and the Bequaert-Kingery Memorial Endowment Shelter Fund.

In 2002, additional funds will be made available in the Grants to Clubs program from a new William T. Foot Memorial Bridge Endowment. Earnings from this fund, established by Foot's friends and family, will be made available for the repair and construction of traditional span bridges, as well as puncheon-like bridging across wetlands or boggy areas. Application forms and grant guidelines, including additional guidelines for funding opportunities available from private endowments such as the Foot Endowment, will be mailed to Trail clubs.

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Trekking Poles:

Can You Save Your Knees—and the Environment?

By Jeffrey L. Marion, Teresa A. Martinez, and Robert D. Proudman

In his 1968 classic, *The Complete Walker*, Colin Fletcher heaped accolades on his trusted walking staff, noting that it transformed him "from an insecure biped into a confident triped." He used his staff for balance and assistance in walking, as something to lean on during breaks, as a way of checking for rattlesnakes, as a fishing

rod, and to knock rainwater from overhanging branches.

Today, technologically advanced trekking poles are replacing such traditional hiking sticks, and their use has dramatically expanded. Our informal polling (pun intended) within the Appalachian Trail community suggests that trekking poles are used by 90 to 95 percent of thru-hikers, 30 to 50 percent of short-term backpackers, and 10 to 15 percent of day-hikers.

A growing number of letters to editors and e-mail traffic within the A.T. community suggests that as more people use trekking poles, more people worry about their environmental and social impacts.

Should they worry? So far, those impacts have not been documented or described in the scientific literature. But, to keep the dialogue going, it is worth reviewing some of the arguments about the pros and cons of trekking poles.

The main advantage of trekking poles is stability—particularly in difficult terrain and stream crossings. One study found that balance was enhanced significantly by their use, so poles could help avoid injuries from falls. Some

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Typical signs of trekking pole use (ATC photo)

From the Editor...

I'm sitting here in February contemplating one of the major benefits of living in Maine—a "normal" winter. We haven't had one in quite some time. This year, however, almost all of January has seen very few days above freezing, everyone has ice dams at the edge of their roofs, and we have almost 18 inches of packed snow on the ground here in the Portland area. I have plenty of firewood, and the wood stove is a comfortable friend as well as a way of keeping the fuel-oil consumption under control. The cross-country skiing has been exceptional (for a change), and even the snowmobile trails have loose snow, instead of packed snow and ice, on them. The weather forecast for tonight is that we may receive another 10 to 12 inches of new snow! Isn't it wonderful? But, soon, we will start to get some cold rain or sleet, and it will change in the process of getting to spring. That's just the way it is.

Thinking of spring, the Trail and its maintenance brings a lot of good memories to mind. Friends, sweat, bugs, blisters, a cool one at the end of the day, and the contentment of doing something for no one in particular, but for everyone in general, gives one a good feeling inside. Working on or for the Appalachian Trail is something that is good to do, and we should feel that way about our work. But, our work has changed over the past several years.

I remember when, at most, it was two, maybe three trips a year out to our section to clear blowdowns, freshen blazes, and clean out waterbars. Every so often, we had to relocate a privy and dig a new pit—no big deal, as it was necessary only every five to seven years, sometimes longer. With the maturation of the Trail, there are (at least) two major things happening. First, that ever-increasing number of hikers. Second, things like marking the corridor-boundary line, dealing with trespasses into the Trail corridor, and, now, caring for endangered plants. It's no longer just the footpath that concerns us.

Then comes the realization that we are no longer just caring for a footpath, but a national park system unit. We all need to review just what this love of ours is and just what its care and nurture requires from each of us.

In the winter issue, we led with an article by Kent Schwarzkopf of the National Park Service Appalachian Trail Park Office, entitled "Do No Inadvertent Harm," about not harming endangered plant species along the Trail. A letter to Schwarzkopf from maintainer Richard Hurd, Jr., in which he takes issue with this new responsibility, is printed on page 3 of this issue, followed by a response from A.T. Park Manager Pam Underhill. Hurd's last sentence, "The clubs and maintainers do not need any more concerns to divert them from their primary mission," begs the question: What is our primary mission?

It is to take care of the Appalachian Trail in all aspects, be they timber trespasses, ATVs, horses, boundary lines, advertising, endangered-plant protection, cultural resources, shelters, privies, waterbars, creek crossings, safety, or any number of other concerns. We, the maintaining clubs and our volunteer members, are challenged to rise to new responsibilities if we are to successfully accept and meet the responsibilities of caring for this national scenic trail. Can we do it? You betcha!

Here is a wonderful challenge! There are so many volunteers available who want to be involved. The concern is how to marshal that tremendous resource to meet all those new responsibilities.

Over more than 25 years of volunteer involvement with the A.T., it has been my observation that the continuing major challenge is to find individuals who will volunteer to accept the responsibility for leadership of a committee, a specific area of responsibility, or a reporting and supervising need. To my amazement, and personal satisfaction, someone always seems to step up and say, "I'll do it." I just hope and pray that we will never run out of such wonderful folks.

This new millennium we're in has some real issues for all of us who love and care for the A.T. Now that the major challenge of providing a protected corridor has been nearly met, I think we can all look forward to a greater involvement of the National

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[NOTE: The outline of the masthead box above is the size of the official A.T. blaze, 2" x 6", for your reference.]

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FROM THE EDITOR—

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Park Service in everything we do. That's good! After all, it is a unit of the national park system. We need to grow with this concept and learn what it is we need to do to meet all those responsibilities we have accepted—including protection of endangered species.

We are unique in that our A.T. is the only major park unit that is cared for and managed by volunteers. We have risen to challenges in the past and will need to rise to new ones in the future. I think we can do it!

LETTERS

“Do No Harm” Requires Common Sense

Dear Mr. Schwarzkopf:

Your article in *The Register* invites comment. I am a Trail maintainer, and I have hiked the entire Trail, end to end, so I see the Trail from at least two perspectives. The NPS likely sees it from a third.

Preserving endangered species, endangered views, and endangered waterways all seem to fit with the A.T. ethic. Yet, as you admit, “maintainers have many tasks to do.” Indeed, and we are all volunteers! Make our job harder, or load us with an unfunded government mandate, and we might melt away.

In the same issue of *The Register*, on page 10, are listed the core requirements of Trail maintenance: “The club must always meet ATC’s standards for marking, clearing, and treadway care....” You must realize that very few of us have any training in plant identification, much less endangered species identification. Obviously you are going to try to rectify this in selected locations, for the benefit of maintainers, but that does nothing to address the masses of people who use the Trail as hikers, in numbers far exceeding the numbers of maintainers. Plus, what is the hapless maintainer going to do when a conflict exists between the need to maintain the Trail and a desire to avoid harming a plant? Is the maintainer at risk of violating a federal law? Do we need to be concerned about this, or do we have immunity? Ditto for hikers.

While I understand someone’s concern about keeping the location secret to avoid illegal collecting, I also see an opportunity to educate hikers and maintainers by actually identifying sites and placing interpretive signs, so that we all can know and enjoy, not just the select few. After all, as U.S. taxpayers, those plants are *our* plants. Moreover, if the Trail did not pass by them, possibly no one would know they were there, and the issue would be moot, and no one could enjoy them.

In closing, while in principle I agree with your goal, a healthy dose of common sense is in order, divorced from the insular perspectives of law and policy. Moreover, the clubs and maintainers do not need any more concerns to divert them from their primary mission.

Richard Hurd, Jr.

Pamela Underhill of the National Park Service responds:

Dear Mr. Hurd:

Kent Schwarzkopf shared with me a copy of your letter, which I believe also invites comment. I think it is fair to say that the National Park Service does not operate as a monolith, and we who work for the NPS on the Appalachian Trail project, like you, see the Trail from a variety of perspectives.

We are keenly aware of the importance of A.T. volunteers and consider them to be one of the Trail’s most valuable resources. We also are aware of the vast array of other valuable resources associated with the Trail, and with that awareness comes a responsibility to protect. More often than not, looking after all that needs looking after involves making difficult choices and seeking to strike a reasonable balance.

Trail Maintenance Quiz

The answers to the questions presented here are not necessarily definitive but represent generally accepted practices as outlined in ATC’s other publications, particularly *Appalachian Trail Design, Construction, and Maintenance*. If you disagree with any of the answers offered, or have additional advice to add on one of these topics, or even ideas for future questions, please let me know.

—J. T. Horn, *New England Regional Representative*

1. To build a log structure (water bar, cribbing, bridge, etc.), what tree species are preferred?
 - a. Black locust and white oak.
 - b. Cedar, tamarack, spruce.
 - c. Fir, birch, poplar.
 - d. Rock maple, ironwood.
2. When bucking logs with an axe, the notched cut should be _____ the diameter of the log?
 - a. Equal to
 - b. One-and-a-half times
 - c. Twice
 - d. Three times
3. When sharpening an ax with a bastard file, you should file:
 - a. Into the blade.
 - b. Away from the blade.
 - c. Doesn’t matter.
 - d. Depends on whether you are right- or left-handed.
4. For a temporary, in-the-field repair for a loose ax head, try:
 - a. Using wood glue.
 - b. Soaking the head in a bucket of water.
 - c. Pounding the handle in with a sledge.
 - d. Duct tape (it works for everything!).

(Answers are on page 6)

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Discouraging the Collectors

EDITOR'S NOTE: Robert W. Gray has been the A.T.'s chief ranger since 1995. As the only National Park Service ranger assigned full-time to the A.T., he is sometimes fondly referred to by clubs and ATC staff as the "Lone Ranger." Beginning with this issue of The Register, Gray will write a periodic column to address various Trail-management and -protection issues.



Robert W. Gray

Correction

In the Fall 2000 issue of *The Register*, we reported that the Falls Village, Connecticut, section of the A.T. was the first designed for mobility-impaired users. We were reminded that the Mt. Rogers Appalachian Trail Club (MRATC) and the Mt. Rogers National Recreation Area in Virginia opened a section of the A.T. below Green Cove Creek as an accessible trail in the mid-1980s. The A.T. shares that section with the Virginia Creeper National Recreation Trail. It is located on an old logging grade. The project includes handicapped-accessible fishing opportunities on Whitetop Laurel Creek, known as an excellent trout stream. The project was completed with funds from the U.S. Forest Service and an award to MRATC through ATC's Grants to Clubs program.

I recently attended an excellent training session for law-enforcement officers on native-plant theft from public lands and strategies for their protection. Poachers are stealing valuable and rare plants from national public lands for international as well as domestic markets. When I started looking for a forum from which to discuss such problems, ATC Director of Trail Management Programs Bob Proudman offered me this column in *The Register*. Given my unofficial title, we thought we would use a little play on words and call it the "Silver Bulletin."

So, to kick this off, let's talk a little about the illegal collection of our native plants on public lands. Many of us know the pleasure of finding a beautiful or rare plant on our tromps through the woods. And, we're satisfied to see it in its natural setting. However, harvesting of our native plants, both legally and illegally, is becoming more of an issue and problem for parks and forests.

Some plants, like ginseng, goldenseal, black cohosh, and purple coneflower, are well known and valued for their herbal medicinal benefits. Other plants, such as galax, are gathered in large quantities by the commercial floral industry for use in flower arrangements. Finally, specimen plants of particularly rare or unusual species, such as ladies-slipper orchids, Gray's lily, and pitcher plants, are illegally collected for a lucrative overseas market, where a single plant can fetch up to several thousands of dollars.

Why should Trail maintainers and monitors be concerned about an issue such as commercial harvesting of native plant species? Because illegal plant collecting adversely affects the resource that is so much a part of the entire "Trail experience." While some plant collecting on Trail lands, usually national forest lands, may be legal activities authorized by permit, the focus of this column is on the illegal poaching of native plant species for commercial purposes.

Some recent examples of plant poaching illustrate the size of the problem. In the Great Smoky Mountains National Park between 1991 and 1999, rangers seized more than 10,000 illegally collected ginseng roots with a commercial value of more than \$53,000. Park officials estimate that the plants seized represented only one percent of the actual amount poached from the park. In 1998, black cohosh was identified as one of the fastest growing herbal products, with sales more than five times that of 1997. It is estimated that 98 percent of black cohosh roots supplied for the herbal market are collected from wild populations. Blue Ridge Parkway rangers recently arrested galax poachers with more than 17,000 stems in their possession. Last year, a single specimen of the very rare Gray's lily was illegally removed from Roan Mountain. Illegal collecting is big business. And, it may have significant adverse effects on the natural diversity of plant species that is so important to healthy ecosystems.

So, what's a concerned A.T. volunteer to do? Learn more about the special plants and animals that populate your section of trail. *Peterson's Field Guide to Eastern/Central Medicinal Plants and Herbs*, and *Newcomb's Wildflower Guide* are

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The Coweeta Dip:

A Sidehill Construction Style

By Ted Ragsdale

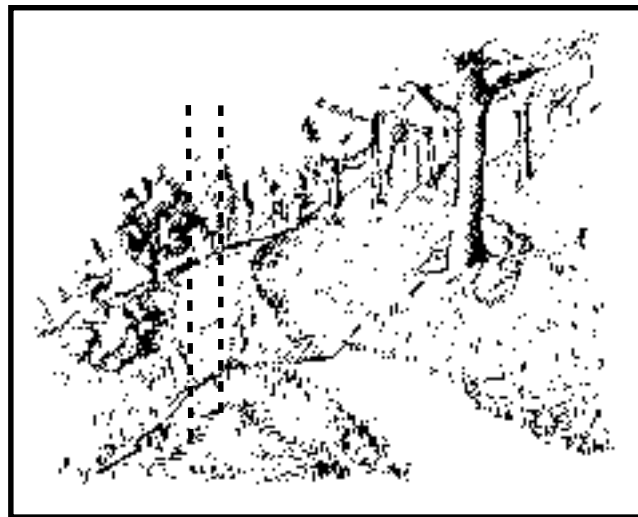
"How do you like my coweeta?" he asked, pointing to a newly constructed drainage dip. Little did he suspect that he was telling me he hadn't read his trail-maintenance manual carefully enough to know what a coweeta dip is.

Actually, all water-diversion structures are so similar in design and function that it isn't surprising that many trail workers simply pick whatever name suits them best. However, all you have to do is look at the picture on page 64 of ATC's revised *Appalachian Trail Design, Construction, and Maintenance* to realize that the coweeta dip, also known as the grade dip, is significantly different from all the other water-diversion devices. It is not a structure at all, but rather a vertical undulation of the treadway, incorporated into the original trail construction. Its advantage is that it is virtually maintenance-free.

Waterbars (log, rock, and earthen), diversion cuts, bleeders, "thank-you ma'ams," drainage dips, cut-outs, and run-off ditches work because water does not run uphill. They create a small, artificial hill to "bar" the water, accompanied by a trench, or spillway, to escort it off the treadway. Generally, those devices are merely temporary fixes, unless continually maintained. Fresh fill dirt erodes much more easily than the compacted treadway and requires coddling (replenishing and mulching) to survive the twin destructive forces of hikers' boots and splash erosion. Worse, spillways tend to fill with sediment, so even log and rock bars soon lose their identity as "hills" that the water can't climb over, allowing run-off water to continue down the treadway, increasing erosion.

The difference with a coweeta dip is that the small "hill" is a portion of the mountainside itself. Sidehill trail descends gradually for perhaps sixty feet, then, as it approaches a tree one vertical foot upslope from it, ascends gradually for about ten linear feet, passing just above the tree, and then continuing to descend. Water can't climb the upslope.

If the area downslope from the tree is open, it is important that it be filled with brush or rocks to prevent hikers from shortcutting below the tree. Hikers are downward-inclined creatures, relishing the descents and abhorring the ascents, and they will not observe an ascent of even a few steps if they can avoid it by short-cutting. Therefore, the tree is crucial to proper functioning of the coweeta dip. This point deserves special emphasis, because trail workers will become disenchanted if the dip fails to last. Without some immovable object, such as a tree, bush, or boulder that requires the hiker to follow the treadway to the top of the vertical undulation, hikers will short-cut the upturn.



Coweeta dip, adapted from Appalachian Trail Design, Construction and Maintenance, page 64. Although this illustration shows a treeless dip, ideally a tree or other object should be located where indicated by the dotted lines, as discussed in the fourth paragraph of this article, so that trees anchor both sides of the rise and prevent hikers from short-cutting the upturn.

GRANTS

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Grants have been awarded in previous years for projects, including shelter or privy construction, bog-bridging materials, major tool purchases, safety gear, development of Trail brochures, video production, and purchasing software to develop a club Web site.

ATC has expanded the scope of its Grants for Outreach program, inviting unaffiliated organizations and individual educators to apply for matching funds.

Since 1994, the Conference has provided grants from this program for projects conducted by volunteer A.T.-maintaining clubs (and other nonprofit organizations sponsored by clubs) that use or make people aware of the Appalachian Trail. It emphasizes programs that reach beyond traditional Trail-users to youth-at-risk, inner-city residents, senior citizens, minorities, people with disabilities, and residents of communities along the Trail. Projects should provide opportunities for these groups to experience and enjoy the A.T.; increase their appreciation and support of the Trail; and encourage their participation in the protection and management of the Appalachian Trail.

Previously, projects from unaffiliated organizations needed to be sponsored by an A.T. club, with the club providing oversight. Now, funding is available to organizations with projects endorsed by an ATC-member club. Actual on-Trail projects, such as a guided hike, still must be sponsored by an ATC club, but other, off-Trail projects, such as a curriculum involving the A.T., will only require club endorsement, with no further administration required.

Application packets for both programs are being mailed to the maintaining clubs or may be obtained by contacting Susan Daniels at ATC Headquarters (address and telephone number on the masthead on page 2 or e-mail <sdaniels@appalachiantrail.org>).

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Answers to Trail-Maintenance Quiz

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1. a or b, depending on region. Some tree species rot faster than others. Others are easier to work with. Your hard work installing a log step or waterbar or bridge will last longer if you pick the right tree species. In the North, the most rot-resistant species are cedar, hemlock, tamarack, spruce, or white oak. In the South, try to find black locust, white oak, black walnut, sassafras, or Osage orange. Fir, birch, and poplar are common northern trees that rot quickly. And, I hope you'll learn from my mistakes and not try to take an ax or cross-cut to the appropriately named rock maple or ironwood!

2. c. When bucking a log, cut a notch at least two times the diameter of the log for most efficient cutting. Too narrow, and your notch will pinch off before you sever the log. Too wide, and you will have wasted effort. *Note:* The exception is when you are able to roll the log, and you are cutting from both sides, in which case a notch on both sides equal to the diameter of the log should sever it in the middle.

3. a. The file should be moved *into* the blade, because it sharpens most efficiently. A well-maintained ax should need sharpening only occasionally with a file; a stone will do for the day-to-day touch ups. *Note:* The obvious danger of sharpening into the blade is why a maintainer should always wear gloves when sharpening a cutting tool.

4. b. Soaking the head in water (bucket, stream, pond, etc.) overnight will swell the wood, leaving the head snug by morning. *Note:* This is a temporary fix only. Eventually, you will have to replace the handle.

DISCOURAGING THE COLLECTORS—

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useful references, as are *Wildflowers of the Appalachian Trail* and *The Appalachian Trail, A Visitor's Companion*, both by Leonard Atkins and available from ATC. Understand what laws and regulations protect plants within your area of responsibility. Is plant collecting allowed by permit or prohibited? Understand that plant poaching is a serious problem and may be prosecuted as a violation of the Endangered Species Act or the Lacey Act (a law that protects plants and animals from commercial exploitation) or another federal or state law.

Informed monitors serve as vigilant stewards of the resources they have volunteered to manage and protect. In the event that you observe suspicious or illegal activities, you should not attempt to confront possible poachers in the field, but note and relay physical and vehicle descriptions, date, time, and location to local park or forest law-enforcement authorities. The Appalachian Trail Park Office also should be notified. If they could talk, our precious native plant species would thank you for it.

Ranger Gray can be reached by e-mail at the Appalachian Trail Park Office, at <robert_gray@nps.gov>, by telephone at 304-535-6171, or by mail at NPS-ATPO, Harpers Ferry Center, Harpers Ferry, WV 25425. Next column: Reporting significant law-enforcement and emergency incidents to park and forest authorities.

“DO NO HARM”

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Your point about not making the work of volunteer Trail maintainers harder or asking them to do things they are ill-equipped to do is well taken. You might be interested to know that, because of that very point, the advisability of this initiative, to try to inform Trail maintainers of the existence of rare plants in locations immediately adjacent to the footpath, was rather vigorously debated among NPS and ATC staff members. Please be heartened to know that many of us share your concerns.

In spite of that concern, however, a decision was made to make the effort to inform Trail maintainers about those rare plants and to provide as much information and support as possible to keep this from being an onerous burden. Those plants, as you so aptly point out, belong to all of us. But, the point is not so much that everyone be given an opportunity to “enjoy” them by being aware of their exact location, but that we “do no inadvertent harm,” that they may continue to exist in the interest of preserving biodiversity on our planet.

So, let's give this effort a chance and see how it works out. We have not taken leave of common sense, and we are not insulating ourselves in law and policy. We are trying to work with you and the ATC to do the right thing in preserving the rich biodiversity of the Appalachian Trail corridor lands.

Pamela Underhill
Park Manager, Appalachian
National Scenic Trail

33rd ATC Biennial Conference

Don't forget to register for ATC's 33rd biennial conference, to be held July 13–20 at Shippensburg University in Pennsylvania. Edwin Bernbaum, environmentalist and an authority on mountain preservation, will be the keynote speaker. A full program of hikes, excursions, and workshops is planned. The meeting schedule and registration information is in the March/April Appalachian Trailway News or may be downloaded from ATC's Web site, <www.appalachiantrail.org/about/biennial.html>



The “Why” Question

Education Planning As a Key to Trail Protection

By John Buchheit

What do you know about the Appalachian Trail? Since you read *The Register*, it’s probably more than the average person on the street.

Would you say that you would like to see the Trail protected, and that you care about the future of the A.T.? Again, the answer probably would be a hearty “Yes!”

Now, here’s the tough question: “Why?”

Why do you care about the Trail, and why do you want to see the Trail protected? Can you explain to friends and family who are not involved with the Trail why you go out on a weekend and get dirty and sweaty putting in water bars, or why you simply like to take a walk along the leaf-covered path in the fall? Can you say why the Trail deserves to be protected from outside threats, such as development, air pollution, and cell-tower proliferation?

Answering those questions is more than just a hypothetical exercise. As members of the Trail community, if we can answer them in a unified and compelling manner, we have a chance to more closely connect the publicly owned resource of Trail to the public that owns it—and to build public support that makes our land-management efforts much more effective.

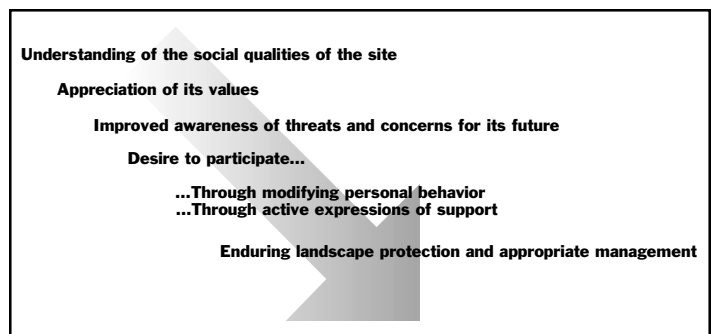
That’s where ATC’s increased emphasis on education planning comes in. Until we can effectively answer the “Why” question, and communicate it to the public, we will be struggling uphill. Answering this question through a unified information, education, and interpretation strategy—whatever the extent of one chosen by the Board—is an important new challenge.

The Conference has about 33,000 members; the maintaining clubs have perhaps another 80,000 members. Those may seem like large numbers, but they pale in comparison to the tens of millions of people whose public voices influence public officials—and it is those officials who will have the ultimate say in many decisions that affect the Trail. Support from the public at large is critical, especially the intangible support that comes when people feel that they own this treasure. That support is best cultivated by informing and educating outdoor recreationists, nearby communities, educators, and children about why the Appalachian Trail has value, whether they hike on it or not.

Researchers have shown the difference that education makes. In a 1992 report on Yorkshire Dales National Park in the United Kingdom, researchers Timothy O’Riordan and Dr. Christopher Wood developed a model that graphically demonstrated how planting the seed of an idea through an education program can lead to greater participation and expressions of support. The model takes the form of a set of values in which concern for the resource develops in a progression:

Information and education can help us accomplish two goals. First, with people who already know and visit the

Trail, we can move them from simply an “appreciation of its values” to “participation” and sustainable behavior. Second, we can introduce people who may not know about or visit the Trail to it and help them develop the first progressive step, “an appreciation of its values.” The National Park Service puts this process in plain terms when it says, “Through education, we can enlist the public as allies. The visitor that knows the fragility of tundra will stay on trails. The visitor who learns that air pollution is destroying what they came to see will support air quality protection.”



Model of the effect of education programs in resource management

So, how do we do it?

When I worked as a ridgerunner, I lived by a golden rule: “Never, *never*, ask anyone to change his or her practices without explaining *why*.” Unless we make a connection to the visitor, showing how special resources such as overlooks and historic sites are, management actions may seem pointless. The more we highlight the stories and resources that the Trail offers, the more visitors will embrace it, and care for it as their own. That is what education for the Appalachian Trail means: Connecting communities of people to the value—and the values—of the Trail.

As a ridgerunner, I had a relatively receptive audience on the Trail. Most of the hikers I met already valued the resource. My on-Trail education effort did not need to move them too far to enable them to incorporate more sustainable practices. Some of our land managers, on the other hand, have a much more difficult task. They may work with groups who start from a completely different set of values. By building a large, supportive, educated constituency that understands and supports the values of the Trail, we can help in this effort. Their efforts are ultimately dependent on individual and societal commitments to the ideals of stewardship, volunteerism, and responsible use.

The Board’s education, information, and outreach committee is drawing up recommendations about the future of interpretation and education on the Trail. Part of this process involves asking a few questions: What are we doing now? What does the full Board want to do in the areas of interpre-

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THE "WHY" QUESTION

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tation and education beyond that? What can we afford? Could we do more as the coordinator of a multilevel partnership?

This process is like navigating with a map and compass: First, you find out where you are, then you decide where you want to go, and finally you choose the best route to get there. Finding out where we are means learning about what the club and agency partners are already doing to inform and educate the public. Many admirable efforts already under the guidance of dedicated professionals and volunteers could serve as models. The next step is identifying needy areas—where are we not reaching audiences that we want to reach? While we pinpoint those areas, we need to keep in mind the proper message, delivery, and location.

Communication and consensus is vital to this process. We need your input every step of the way. Are there education or interpretation programs that you think are great models for the A.T.? Is there an audience that you believe is important to reach? Do you have ideas that you think should be included? We would like to hear your views on these topics.

If you would like to contribute information to the education inventory or ideas to the planning process, please contact me at <jbuchheit@appalachiantrail.org>, or by phone at 304-535-6331. Also, look for a workshop at the 2001 biennial conference in Shippensburg on this topic, where we will discuss ideas for the future of education and the Trail.

John Buchheit, ATC education planner, is a member of the Potomac Appalachian Trail Club, a former teacher, ridgerunner, boundary-maintenance technician, and an A.T. 2,000-miler.

COWEETA DIP

Continued From Page 3:

If you have tried the coveeta dip and found that hikers short-cut the upturn, try planting a section of a log upright alongside the top of the vertical undulation, so it looks like a stump, and make sure there are enough impediments in the area below the "stump" to force hikers to go above it. However, you may as well expect that some hikers will become vexed with your immovable objects and try to remove them. Plant them firmly enough in the ground to make them say, "Hey, maybe that really is a stump." Likewise, boulders that are used as immovable objects should be embedded deeply in well-tamped moist clay, if possible, with a minimum of exposed angular projections that can be used as handholds.

The coveeta dip is superior to all other constructed drainage devices because it is much higher than any waterbar—at least a vertical foot. Coveetas also expand the drainage area beyond the one or two shovel-widths of a waterbar. While a waterbar typically requires a once-a-year cleaning, the coveeta dip may function for ten or twenty years unaided by human hands.

Ted Ragsdale is a volunteer trail worker at the Chattahoochee River National Recreational Area near his home and also maintains 1.4 miles of the A.T. and 2.5 miles of the Benton MacKaye Trail, all in Georgia. He can be reached at 930 Buckingham Circle, Atlanta, GA 30327, by telephone at 494-237-7857, or by e-mail at <Two-stickTed@aol.com>.

Help Wanted: Trail Crews

AMC Crew in the White Mountains

The **Appalachian Mountain Club** is initiating a 2001 volunteer Appalachian Trail crew based in the Berkshire Mountains. The Southern New England Appalachian Trail Crew will work in conjunction with AMC-Berkshire A.T. Committee volunteers, the Appalachian Trail Conference, and the Massachusetts Division of Forests and Parks to tackle a variety of maintenance and reconstruction projects on the Appalachian Trail. The crew season will be seven weeks long, running June 26 through August 11.

AMC will provide training, tools, group camping gear, all meals and snacks, transportation for the week, and a crew T-shirt. Applicants should be age 16 or older. Week five will be a teen-only crew for participants 16 to 19 years old.

To apply, contact Deno Contos, AMC Regional Trails Coordinator, P.O. Box 1800, Lanesboro, MA 01237-1800; 413-443-0011, ext. 16; or download an application from AMC's Web site: <www.outdoors.org/join/>. The registration fee is \$50 for AMC members and \$60 for nonmembers.

ATC 2001 Seasonal Crews

Build the Appalachian Trail for the new millennium! No experience is required, as professional crew leaders instruct participants in trail-building techniques. Five different crews operate along the A.T. during the summer and fall months and are jointly sponsored by A.T. maintaining clubs, agency partners, and ATC. Special women-only and over-50 crews will continue to be offered this year. To learn more and to request an application, send a postcard with your name and address to: Crews, ATC, TR-01B/C, P.O. Box 10, Newport, VA 24128; call 540-544-7388; or e-mail <crews@appalachiantrail.org>.

2001 ATC Volunteer Trail Crew Schedules

May 17–August 20	Konnarock Crew
June 9–August 15	Maine Trail Crew
July 16–September 21	Long Trail Patrol (Vermont)
August 30–October 22	Mid-Atlantic Crew
Sept. 7–Oct. 28	Rocky Top Crew (Great Smoky Mountains National Park)

A 3.2-mile, \$4-million acquisition of the Trail route over Maine's privately owned Saddleback Mountain was completed in January. The owner agreed to convey about 1,435 acres to the National Park Service after a long-running controversy that was, in the end, resolved amicably. ATC Executive Director Dave Startzell characterized the final deal as providing less protection than the Conference had hoped for. However, he noted that the final proposal protects the Trail footpath and prevents future development from crossing the Trail. It also protects 90 percent of the viewshed around the mountain, keeps the ski area from draining scenic Eddy Pond as a source of water for snow-making, and preserves 95 percent of the mountain's alpine areas. But, he said, it did not automatically stop future adjacent development. Should it become necessary, the Conference will be fully involved in state development-permit processes to limit the impact of any future ski development near the A.T.

The **Tidewater Appalachian Trail Club** will host the 2001 Southern Region Multiclub meeting August 31–September 3 at Sherando Lake Campground near Waynesboro, Va. The meeting will feature hikes on the A.T. and nearby trails, excursions, seminars, swimming, canoeing, the annual business meeting, and an opportunity for fellowship with members of the southern clubs. Contact Ned Kuhns at 757-423-2832, ext. 280, e-mail <nedk@clloydjohnson.com>, or Rosanne Scott by e-mail at <rosannes@fsap.org>, for registration forms.

Reese Lukei of the **Tidewater A.T. Club** became the first person to receive the Friend of Virginia's Trails Award from the Virginia Governor's Conference on Greenways and Blueways. Lukei is the national coordinator for the

Elk are being reintroduced this spring into the Great Smoky Mountains National Park, 150 years after they disappeared from the wild. Twenty-five elk will be tracked by radio collars to help determine their habitat use and food preferences. That information will be used along with health and mortality data to determine the feasibility of a full-scale elk reintroduction in the Smokies. The five-year experiment, at an estimated cost of \$1.1 million, is being funded by donations from the Rocky Mountain Elk Foundation, the Friends of the Great Smoky Mountains National Park, and the Great Smoky Mountains Natural History Association.

In January, the Piedmont Environmental Council purchased a 1,200-acre tract of farmland bordering the Appalachian Trail and Sky Meadows State Park in Fauquier County, Virginia. The \$6 million in purchase funds came from private donations. The National Park Service will pay \$1.2 million to

ALONG THE TRAIL

American Discovery Trail, and former ATC Board member and volunteer editor of *The Register*.

Ed Goodell, a hiker and outdoor enthusiast, became executive director of the **New York–New Jersey Trail Conference** (NY-NJ TC) in March. On accepting his new positions, Goodell commented, "The Trail Conference has a great story. It is an enduring grassroots organization with an incredibly successful record of creating usable open space in the most populated region of the country. I am delighted to be joining the volunteers and staff who are creating an even brighter future." His experience includes leading a variety of mission-driven organizations and operating his own landscaping business, as well as volunteering and serving on boards.

With the purchase of an additional 1,065 acres in December, ninety-five percent of Sterling Forest along the New York–New Jersey border is now protected. The land becomes part of Sterling Forest State Park, which is managed by the Palisades Interstate Park Commission and encompasses more than 19,000 acres, including a portion of the Appalachian Trail. Funds totaling \$7.89 million for this most recent purchase were provided by the federal government, the states of New York and New Jersey, the Palisades Interstate Park Commission, and other organizations, as well as individuals. The final \$250,000 to complete the purchase was provided by a NY-NJ TC member and the North Jersey District Water Supply Commission (the area forms the headwaters for reservoirs supplying drinking water to much of northern New Jersey). Sterling Forest LLC, a Swiss-owned company, still owns about 1,000 acres in Sterling Forest, including a 585-acre tract where it proposes to construct a golf-course community with about 100 homes and a 270-acre ski center.

SIDE TRAILS

the council for part of the land that will serve as a buffer to the A.T. Some of the remaining land may become part of the state park system.

The December 2000 issue of *AMC Outdoors* magazine reported on the phenomenon of "bootleg trails" being created in the White Mountains National Forest. A Forest Service official estimated that about three dozen such trails have been cut throughout the forest over the past four years. Most appear to be hiking trails, but mountain bikers, backcountry skiers, snowmobilers, and ATV riders have used others. The trails are not just a result of trampling or bushwhacking, but are deliberately cut and usually blazed or otherwise marked. A two-and-half-mile long trail discovered last summer "was four feet wide, blazed with yellow paint, and marched nearly straight up the fall line of a mountain.... It had no waterbars and few switchbacks to keep water from rushing straight down the slope, taking the thin layer of topsoil with it."

TREKKING—

Continued From Page 1:

weight is transferred from users' legs to the poles, relieving stress and possible injury to the lower back, knees, and ankles. They are a particular aid when climbing and descending hills. For example, another study reported, a typical hiker would transfer 13 tons per hour with two poles in flat terrain, 28 tons when ascending, and 34 tons when descending.

Trekking poles may be viewed as essential by older hikers or those with weaker knees or other health limitations. For visitors in good health and condition, trekking poles can provide greater stability and safety in rough terrain, permit longer hikes, or reduce strain and soreness of the lower extremities. Poles also allowed backpackers to adopt more normal walking postures and stride lengths.

However, hikers do not expend less energy when they use trekking poles. A treadmill study showed that metabolic energy expenditures were shifted from leg to arm muscles, with no net change over all. Cardiovascular demands increased, but subjects perceived their level of exertion to be lower. Among the disadvantages of poles are cost (from \$40 to \$250 per pair), inconvenience when hikers need to use their hands, added weight when not in use, and the vigilance needed to guard against theft.

Despite thorough searches of the scientific literature and Internet Web sites, we were unable to locate any research that has investigated the environmental and social impacts of trekking poles. What follows, then, are based on personal observations, extrapolations from other visitor-impact studies, and speculation regarding the potential impacts of trekking pole use.

Impact on Vegetation—Trailside vegetation can be damaged from the swinging action of trekking poles, par-

ticularly from contact with the baskets, which can get caught in low-growing plants. One North Carolina hiker noted in an e-mail to ATC that "the ground was becoming torn up by spiked walking poles. On the uphill side of the trail, moss and wild flowers were torn from their bedding. On the downside of the trail, parts of the trail were also torn away." The potential consequences of such damage include a reduction or loss of vegetation cover, change in vegetation composition, and trail widening.

Impact on Soil—In wet or loose soils, pole tips can penetrate up to two inches and leave holes one-half inch in diameter. These holes are of-

areas with high densities of holes turn trail sides to mud, as often occurs on horse trails when water fills hoof prints? Trails that are outsloped for water drainage would not prevent such muddiness; water bars and drainage dips would prevent muddiness only on the downhill sides of trails. Significant impacts from heavy pole use could even make the trail more difficult to use or increase maintenance work and costs.

Impact on Rocks—The carbide tips on trekking poles leave visually obvious white scratch marks on rock surfaces and also damage lichens. A hiker in Maine related in an *ATN* letter that "the scratching is so pronounced on granite surfaces that it is sometimes easier to follow where the poles have been than to locate a white blaze." In a letter to *Backpacker* magazine's Web site, a hiker in the Adirondacks wrote, "I was upset to see all the rocks had little white marks on them. Not just a rock here or there, but all the rocks on the trail were chipped by hundreds of people.... It got to the point where I could not concentrate

Tips for No-Trace Trekking

1. Use poles responsibly. Be sensitive to the potential environmental and social impacts of pole use. Avoid or minimize damage to vegetation, soils, and rock.
2. Use rubber tips when possible. Carbide tips scar rocks, can be noisy, and leave holes in soft soils.
3. Remove baskets unless traveling in snow. Pole baskets catch and can damage vegetation and are rarely needed.
4. Minimize pole use. Evaluate whether you need poles for a particular hike or for all sections (e.g., flat or sensitive terrain) during your hike.

ten V-shaped, wider at the top due to the swing of the upper pole once the tip is embedded in soil. Under some conditions, we have also seen soil lifted by pole tips and dropped on the ground surface. In a letter to the *Appalachian Trailway News (ATN)*, a Virginia hiker observed, "These things are tearing up the trail on each side of the footpath. Some places look like they have been freshly plowed." Such disturbance could cause the loss of organic litter, expose soil, and increase erosion and muddiness.

Research is needed to document if, and to what extent, pole use can increase rates of erosion. When surface water runoff after rainfall fills the holes created by pole tips, to what extent does it cause muddiness? Does increased water and soil contact in

on anything else but these thousands of little white gashes in the rocks I was stepping on. It really left a bad taste in my mouth and a grim look to the future."

Social and Aesthetic Impacts—The audible scraping noises that trekking poles make when used on hard surfaces can also be an irritant to fellow hikers. One Internet "newsgroup" correspondent likened the sound to "'fingernails on a chalkboard' when crossing rock surfaces." For some hikers, visual impact "takes away from my experience because I feel like someone just walked by there a few minutes ago...bye-bye wilderness." Collectively, those impacts have the potential to trigger conflict between trail users, much the same as conflicts between hikers and horseback riders

or mountain bike riders.

Some amount of resource impact is an inevitable consequence of nearly every form of recreational activity, including hiking without poles. Writing about a growing and popular practice may simply stimulate controversy. However, a problem must be identified before it can be resolved, better understood, and mitigated. Until some authoritative studies are available to substantiate the reported problems and clearly identify which ones need serious attention, what can hikers, maintainers, and managers do?

Trekking-pole users can help minimize resource and social impacts by considering the Leave No Trace (LNT) pole-use practices we suggest in the adjacent box. Hikers may find trekking poles to be indispensable for some hikes, or portions of hikes, but consider stowing them in flat terrain or when their use causes obvious environmental impacts. Removing baskets and using blunt rubber tips could substantially reduce the tearing and digging of the poles. Although rubber tips will wear off and may become trail litter, we consider this an acceptable cost.

Pole manufacturers could investigate and design "environment-friendly" models with blunted tips. Since many poles are already sold with rubber tips attached and baskets unattached, product literature should stress that basket use is optional and rubber tips are recommended for standard use. Tip wear should be monitored so they can be replaced before falling off in use.

Finally, we need to recognize that pole use is—like choosing hiking boots—important to a hiker's comfort and safety and is, therefore, a personal choice. But, it is a choice with consequences that we should recognize and acknowledge in our ethical use of the backcountry.

Jeff Marion, Ph.D., is a research biologist with the U.S. Geological Survey who studies visitor impacts to national parks and other protected areas. Teresa Martinez is an associate regional representative with the Appalachian Trail Conference. Bob Proudman is the Conference's director of trail management programs.

ATC's Mike Dawson Leaving

Mike Dawson, an ATC regional representative for more than 20 years, has left ATC to become director of trail management and protection for the Pacific Northwest Trail Association. The organization sponsors that 1,100-mile-long national scenic trail, which crosses Washington and Idaho and links to the Continental Divide Trail in Montana.

Dawson joined the ATC staff in 1979 to head its first regional office in the south. In 1983, that region was divided, creating a new office in North Carolina to serve Georgia, North Carolina, and Tennessee, while the other was designated to serve central and southwest Virginia, where Dawson remained.

Dawson was instrumental in obtaining additions to the Virginia Wilderness Act that further protected wild areas along the Appalachian Trail. In 1983, he was a major player in creating and implementing the Konnarock Trail crew, which became the model for A.T. crews in other regions and remains ATC's flagship crew program. Bob Proudman, Dawson's supervisor, commented, "Michael's work on the A.T. will be deeply missed. He was instrumental in selecting thousands of acres of lands later acquired by the NPS and USFS for the A.T. protec-



Mike Dawson

tion program. He leaves a permanent legacy of a magnificent cross-section of lands that can be seen from the A.T. footpath and that now are mapped for permanent retention on behalf of the Trail."

Kennebec Ferry schedule

During the 2000 season, 1,381 hikers were safely ferried across the Kennebec River in Maine by Steve Longley of Rivers & Trails Northeast, Inc., a two-percent increase over the previous year.

In 2001, the ferry will operate four hours daily in two-hour morning and afternoon sessions during the peak season from July 20 through September. This is a change from last year's schedule, when one four-hour period was scheduled midday during the peak season.

Again in 2001, no after-hours service will be provided. Off-season service may be arranged with Longley at 1-888-FLOAT ME.

The 2001 ferry schedule will be as follows:

- May 18–July 19 9 a.m. to 11 a.m.
- July 20–October 1 9 a.m. to 11 a.m. and 3 p.m. to 5 p.m.
- October 2–15 9 a.m. to 11 a.m.

ATC CALENDAR

Trail Skills Workshops

More detailed information for workshops, including dates, times, locations, sponsoring organizations, contact persons, and fees (where applicable), can be found on ATC's Web site at www.appalachiantrail.org/protect/steward, or by contacting your ATC regional office.

New England Region

Basic Trail Maintenance
 Corridor Monitoring and Boundary Maintenance
 Chainsaw Certification
 Special Skills Workshops: *developing a new trail or trail system, erosion control/trail stabilization, Griphoist and rock workshop, basic shelter/campsite maintenance, wilderness first aid with SOLO, backcountry sanitation management, Leave No Trace trainer course, alpine trail maintenance, waterbar construction*

Mid-Atlantic Region

Corridor Monitoring and Boundary Maintenance
 Chainsaw Certification
 Special Skills Workshops: *rock work, wilderness first-aid certification with SOLO*
 Volunteer Ridgerunner Training

Southern Region

Basic Trail Maintenance
 Corridor Monitoring
 Chainsaw Certification
 First Aid/CPR Training
 Special Skills Workshops: *wilderness first-aid certification with SOLO, Leave No Trace trainer course, drainage, rock work, bog bridge/turnpike construction*

- April 1 Copy Deadline, Summer Issue of *The Register*
 April 27-29 ATC Board of Managers Meeting, National Conservation Training Center, Shepherds-town, W.Va.
- May 16-20 Ridgerunner Training, Scott Farm, Pa.
 May 18-20 Damascus, Va., Trail Days
 May 28 ATC Offices Closed—Memorial Day Holiday
- June 2 National Trails Day
- July 1 Copy Deadline, Fall Issue of *The Register*
 July 4 ATC Offices Closed—Independence Day
 July 13-20 ATC Biennial Conference, Shippensburg, Pa.
 July 15 Deadline for both Grants to Clubs and Grants for Outreach 2002 applications
- August 15 Ridgerunner Recap, Scott Farm, Pa.
- September 1-3 Southern Multiclub meet, Sherando Lake Campground, Va.
- October 1 Copy Deadline, Winter Issue of *The Register*
 October 5-7 ALDHA Gathering, Hanover, N.H.
 October 20 Mid-Atlantic Regional Management Committee Meeting, Boiling Springs High School, Boiling Springs, Pa.
- October 26-28 New England Regional Management Committee Meeting, Hulbert Outdoor Center, Fairlee, Vt.

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