A PUBLICATION OF THE LEAVE NO TRACE CENTER FOR OUTDOOR ETHICS

SPRING2004

THELracker

Remembering Dave Andreas

America's National Parks

Electric Food Storage

An Adventure Racer's Place in Leave No Trace \rightarrow \rightarrow

outlookowhatwouldyoudo

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springtime resolution

At a recent staff meeting while discussing the intricacies of camping, I exclaimed, "I don't even like camping anymore!" After a dead silence and then several disoriented looks, I claimed, "Ah, just joking. I was only looking for a reaction."

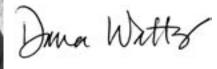
As the conversation resumed though, I realized that camping really does seem like a remote concept right now. After the recent birth of my second child, it's enough to get everyone in their shoes and out the door, let alone, pack gear, food and all the necessities for an overnight in the woods. Just the thought of it sends nervous tingles up my spine.

But how could someone who works for the Leave No Trace Center for Outdoor Ethics not be an avid camper? Believe me, I spend ample time outdoors these days, though I always seem to be solo. I thoroughly enjoy my hikes, trail runs and time on my skis. They have all simply evolved into joyous little exercises in solitude.

Camping, honestly, seems difficult to pull off; in fact most of my visions straddle laugh-out-loud humor and high drama. As the days turn longer and lovelier though, I am getting the itch. And isn't spring all about gaining inspiration from our time in the outdoors?

My resolve is that it's time again for me to dig out the stove, dust the sleeping bag, and get the family prepared. We're going to hit the hills this summer and spend at least one night in a tent. It might be the worst sleep of our lives—in fact, it will be. On the other hand, I know we will also feel the awe and inspiration that brought us out there in the first place.

Happy Camping!





THE Tracker

editor susy levin art director allison bozeman

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novak

After a seventeen hour

drive to the desert solstice party of some good friends, you arrive to chaos. A dozen vehicles are haphazardly parked atop vegetation. Two campfires have been started on the flat rock formations. Music pounds from car speakers. no trash plan beyond

There is clearly throwing everything into the campfires. **Everyone** is having a great time.

> What would vou do?

Switch "solstice partiers" to "OHV enthusiasts at Imperial Sand Dunes in Southern California" and you have my ATV riding group.

During the campfire ask the group what they think happens to the items tossed in the fire. Discuss the "paper products only" concept. If the group is edgy about paper only (and they will be), avow that you are a born again recycler and provide appropriate containers. Look to the next day to address car parking, fire placement and car speaker noise as an evening in full swing is hard to redirect. Invite friends to join in a fire starting contest and find a teachable moment to discuss minimizing campfire impacts. Then, pull out your best Paul Petzel quote about preserving the environment and weave those sentiments into the group's appreciation of the Earth's solstice. Invite your friends to suggest ways to minimize impacts for the remaining solstice celebration.

Jo Ann Schiffer-Burdett MORENO VALLEY, CA

"Flee!"

Dan Rebba

Franklin Lakes, NJ

I'd do what I could—talk to my partying friends when they seemed sober, encourage people to be thoughtful with their lighters, clean up after everyone. I've already done the drive, right? I would then try to enjoy myself and not let the debauchery overwhelm my experience. Also, I'd try to encourage people to stick around afterwards to do a clean up, and then I'd talk to the party hosts about celebrating next year's winter solstice in a Walmart parking lot.

RICH STEIN Toledo, Ohio

While on a Saturday hike, groups of racers begin running by you. You step to the side of the trail and let each racer pass. After you have yielded to 40 odd runners without much forward progress yourself, you begin resisting the instinct to yield.

What would you do?

please send responses {150 words or less} to susy@LNT.org

master educator course schedules

National Outdoor Leadership School (NOLS)			
Date	Location	Activity	
4/26-4/30	Nantahala National Forest NC	Backpacking	
5/10-5/14	Grand Staircase-Escalante Natl Mon UT	Backpacking	
5/17-5/21	Daniel Boone National Forest KY	Backpacking	
6/07-6/11	Yellowstone National Park WY	Backpacking	
6/14-6/18	Shenandoah National Park VA	Backpacking	
7/12-7/16	Desolation Valley Wilderness CA	Backpacking	
8/16-8/20	North Cascades National Park WA	Backpacking	
9/13-9/17	Mt. Rogers National Rec Area VA	Backpacking	
9/20-9/24	Olympic National Park WA	Backpacking	
9/27-10/2	Green River/Labyrinth Canyon UT	Canoeing	
10/25-10/29	Ouachita National Forest AR	Backpacking	

Custom/Contract Courses: If there are no courses offered in your geographic area, NOLS may be able to design a custom or contract to meet your needs. This can be a great way for organizations to train their staffs at substantial cost savings. Contact the NOLS Leave No Trace office for details.

For more information contact:

Michael Cheek • National Outdoor Leadership School • 288 Main Street, Lander, WY 82520 • 1.800.710.NOLS (6657) • michael_cheek@nols.edu

Appalachian Mountain Club			
Date	Location	Activity	
05/5-5/9 5/17-5/21 7/23-7/25, 7/30-8/1	Delaware Water Gap, NJ Pinkham Notch (White Mts), NH Boston area, MA, Berkshires, MA	Backpacking Backpacking Backpacking	
9/13-9/17 9/20-9/24 10/4-10/8 10/18-10/22	Boundary Waters Canoe Area, MN Adirondack State Park, NY Hulbert Outdoor Center, Fairlee, VT Delaware Water Gap, NJ	Canoeing Backpacking Backpacking Backpacking	

AMC is exploring the possibility of scheduling a Leave No Trace Master course in either Quebec or Ontario, Canada in 2004. Please contact Dara Johnson if you are interested in a Canadian course. • The July course will be held over two consecutive weekends. The first weekend will be camping near Boston or in central MA (exact location TBA), and the second weekend will be backpacking in the Berkshires of western MA. • If you have a group of at least 7 people who cannot attend a currently scheduled course, contact AMC about the possibility of a custom Master course. • To register for a course, first complete and submit the Leave No Trace AMC Master Course Application. Once your application is approved, the AMC will contact you to complete your registration.

For more information contact:

Dara Johnson • AMC Leave No Trace Coordinator • 603-466-2721, ext. 209 • djohnson@outdoors.org

dispatchesonewsyoucanuse



Dave Andreas, remembered by family and friends.

memorial fund established for dave andreas

Family and friends recently honored the life of Dave Andreas by establishing a memorial fund in his name for Leave No Trace. Dave was an avid outdoorsman, and moved from Illinois to Colorado in 1996 to follow his passion for the mountain. Dave received an undergraduate degree in environmental engineering from Colorado State University and was pursuing a master's degree from the Colorado School of Mines.

Dave was a devoted climber, backpacker, snowboarder and mountain biker among many other activities. More importantly, though, his friends describe him as

simply loving being outdoors. He derived a great sense of peace from the natural world, his life and passions following his path in his studies. Dave's energy, courage, enthusiasm and love for the outdoors, leadership, and wisdom will be greatly missed.

pocket guide to leave no trace: the newest resource

The new Pocket Guide to Leave No Trace, a 12-page minibooklet is now available. This condensed version of the 28-page North American Skills & Ethics booklet contains essential Leave No Trace information and is perfect for those who want more than a hang tag but less than a Skills & Ethics booklet. The Pocket Guide to Leave No Trace, \$.50, is now available for order.

online trainer course reporting

If you teach Trainer courses, did you know that reporting new trainers is now done online? Currently, the Center for Outdoor Ethics sends each new Trainer a certificate when the Master Educator who facilitated the course submits a course roster including participant information. To make this process easier, Master Educators can now log-on to www.LNT.org and select "Training Course Information." Once on the Training page, Masters can fill out a simple form directly for the Center. Submitting course rosters online is the most efficient way for Trainers to receive their

stock gifts: a new giving option

Now is the time to think about what you want for the future. By making a stock gift to Leave No Trace, you not only support the organization but you also help you and your family. To find out more, contact Susy Levin at susy@LNT.org.

insurance for master educators offering trainer courses

It's time, once again, for Master Educators to renew insurance coverage through the Center for Outdoor Ethics. Now is also the time for interested Master Educators to sign-up for insurance coverage. If you would like to renew, simply send a check for \$65 payable to Leave No Trace or call to pay by credit card. The coverage period is from April 2004-April 2005, running for a period of one year, though Master Educators can sign up at any time during the year. Insurance requirements are outlined in the National Leave No Trace Training Guidelines.

looking for new training "recipes"

The Center is accepting submissions for the second volume of the Leave No Trace Training Cookbook. We would like to compile activities and training ideas that you currently use while in the field teaching Leave No Trace including, but not limited to:

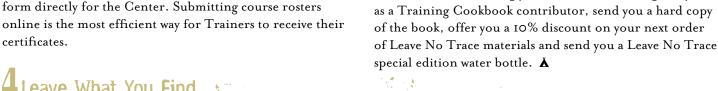
The Leave No Trace

- + Training ideas for specific age groups, especially youth
- + Activities for one-hour to one-day presentations and/or training
- + Any creative ideas and techniques you have used to reach the general public with Leave No Trace

Your activity suggestions will become part of the curricula that Leave No Trace educators can turn to for teaching ideas. Please visit the following link to download recipe submission forms: http://www.lnt.org/TeachingLNT/

MasterQuestions.php. Please return the questionnaire to Leave No Trace P.O. Box 997 Boulder, CO 80306.

In return for submitting your ideas, we will recognize you



planning your visit to one of america's national parks

Between 1923 and 2003, annual visits to America's national parks grew from 1.5 million to 266 million. It's no wonder why—our national parks are truly amazing places! If you're a well-seasoned park visitor you already know why these places are so special. If you've never experienced a national park, don't wait any longer. The National Park Service manages 54 national parks and an additional 300+ park service units such as national monuments, historic sites, battlefields, wild rivers, long-distance trails and national seashores. With so many options, a little preplanning will go a long way towards ensuring a great visit to one of these treasures.

The best place to start is the National Park Service website: www.nps.gov. The site allows users to access information about every National Park Service unit in the country. The information on the site is organized into four main categories: Parks & Recreation, History & Culture, Nature & Science and Interpretation & Education. Each National Park Service unit has its own website that provides in-depth information, area maps, lists of activities and education programs, and tips on planning your visit. Most national parks have a visitor center that you can call to speak with a ranger about the area. You can also have the National Park Service send you maps and other information to help you plan your visit.

There are several things to consider when deciding which national park to visit:

- + What activities are you interested in—hiking, rafting, camping, fishing, bird watching, auto touring, snowshoeing, horseback riding, climbing or the best views? Does the park offer the recreational opportunities you're interested in?
- + What time of year will you be visiting, and what will the weather be like?
- + How much time will you have? One day or a week?
- + Are there entrance fees? If so, how much?
- + Does the park offer ranger-led activities, hikes and education programs?
- +Where will you stay in the area?
- + If you plan on camping, do you need reservations or a permit?
- + Are there particular wildlife considerations for the area?

Planning your visit to a national park is easy and a great way to start day dreaming even before you go. By doing a little research, you can be prepared, knowledgeable and ready to experience all that our national parks have to offer.

Ben Lawhon is the Education Director for the Leave No Trace Center for Outdoor Ethics.



Did you know you {members: 6 months or more} could save up to \$3000 on the purchase of a new car with the Subaru VIP program?

"It got us a great price with no negotiating... approximately \$2000 off sticker price [Subaru Outback Wagon Limited]. He [our salesman] showed us up front the prices for the models we were interested in." Rick. Washington. CT

All Leave No Trace members are eligible for the Subaru VIP Partners Program. Save up to \$3000 off the Manufacturer's Suggested Retail Price on the purchase or lease of a new Subaru.

"The process went smoothly for me. I think it only took one phone call...I got a good deal on the vehicle too." Michael, Lander, WY

For more information please contact Leave No Trace at 1-800-332-4100 BEFORE visiting your local Subaru dealer. Visit www.travelingtrainers.org for more information

- * Save between \$1500-\$3000 without compromising other incentives
- * Leased vehicles qualify
- * Most trade-ins accepted
- *Spouses and/or domestic partners residing at the same address qualify
- * Process completed within 24 hours

"I'm glad that this VIP partnership exists between Leave No Trace and Subaru. My money goes to a worthwhile cause, and Subaru is willing to throw in extra incentives..." Stacy. Sturgeon Bay. WI

Minimize Campfire Impacts 5

he race official counted down, and we were off. This stage consisted of an 8 mile run with approximately 2,500 feet of elevation gain and loss. It was only the third stage of what would be a 36 hour race for our team, and we started off up a jeep road in a measured run. This quickly turned into a power hike as we started the climb in earnest. Over the next hour we passed and were passed by other teams as we climbed. One that we passed was taking a short "rest" for one of their team members to find an appropriate restroom facility.

After finding the checkpoint at the summit, we then bombed down an enormous valley, quickly losing all the elevation we had gained. 49 other teams of 3 racers would do this same descent over the course of 3 hours. There was no trail here, and it was up to each team to choose their best path, and ideally minimize their time in getting to the next checkpoint.

Gotta go when you gotta go!

This race took place almost four years ago. As I immerse myself more into the Leave No Trace culture, I have begun to think back and ask myself what were the impacts of our team, the other teams, and all the race support involved that weekend. What should be the role of Leave No Trace in adventure racing? Do adventure races even belong on our public lands?

According to the United States Adventure Racing Association (USARA), there were approximately 40 adventure races in 2000, and over 300 in 2003 in the United States. USARA believes that adventure racing has the potential to double in the next several years. Adventure races vary widely in duration, with the shortest "sprint" races lasting less than 8 hours, and the longest "expedition" races more than 3 days. In 2003, approximately 80% of the USARA sanctioned races were less than a day, and

Adventure racers line up at the start of the 19-mile mountain biking leg that kickstarted the race.



only I percent were more than three days.

Some feel that the competition and commercial sponsorship of adventure racing are not appropriate sustainable activities on public lands, however this decision resides with the managers of the specific agencies. Jim Miller, U.S. Forest Service national agency advisor to Leave No Trace, says that on U.S. Forest Service land, local managers make individual decisions about a race's viability and what conditions must exist if a race should happen. The only blanket, national policy is that adventure racing is not appropriate for designated wilderness areas.

Patti Klein, Bureau of Land Management (BLM) national agency advisor to Leave No Trace, relays a similar message. Through a very stringent and detailed permitting process, the BLM deems that appropriate controls have been put into place to ensure that permit holders adhere to the guidelines stipulated in their permits. To support this, a BLM representative is onsite during each race to monitor the permit stipulations. In some cases, the BLM may require a performance bond to ensure compliance.

The Leave No Trace Center for Outdoor Ethic's role in this puzzle is to help the land management agencies, race organizers, and race participants incorporate minimum

impact practices and to choose courses and routes that are the most sustainable.

Inherent with adventure racing is a perpetual battle between the clock and Leave No Trace practices. Unfortunately, they do not always complement each other. Any honest racer will tell you that if they are given a choice between two routes, they will almost always pick the shortest one, regardless of potential impacts. There are also other racing impacts when time is a factor such as human waste disposal, concentrated off trail use, trail short cutting, impacting other user groups, and wildlife disturbance.

To confront these dilemmas, the USARA has developed an ecological standards guide based heavily on the Leave No Trace program. Other groups have emerged, one being Adventure Racers for the Environment, that are committed to taking on potential environmental hazards from this type of racing.

However Miller would like to see adventure race promoters take a lead in adopting penalties for racers who cause impacts. Races currently have time penalties for failures to carry required safety gear. If a sensitive area cannot be avoided, then the promoter can stipulate rules for low impact travel, and back these up with time penalties.

Race promoters are taking some steps. To combat excessive litter, select adventure races have begun to require that teams label every piece of gear, shoe, gel

> wrapper, water bottle that they carry. Teams are penalized if anything is left behind.

Barry Siff, co-owner of Mountain Quest Adventures and a race promoter/racer himself, believes that promoters have an absolute responsibility in designing courses that avoid sensitive areas and minimize all other impacts. He feels this can be accomplished through careful course

selection and the use of checkpoints to funnel races along more durable routes. Siff often finds that environmental groups can be the biggest hurdle to obtaining race permits. He says that by listening to their concerns, he has always been able to find alternatives that work for everyone.

Jeff Marion, chair of the Leave No Trace Education Review Committee, pointed out that the actual adventure races themselves represent a very insignificant portion of public land use. He suggests that during an adventure race, this population may not always make the most environmentally sustainable decisions. However, he believes that the more significant portion of land use occurs on the numerous days adventure racers spend training on public lands. He says that when the clock is not as much of an issue, they can make sustainable choices and are an ideal audience for

Leave No Trace.

As with all recreational activities, it is up to the parties involved to either avoid or minimize their impacts. As long as land managers feel that adventure racing is an appropriate activity for the lands they manage, impacts will be an issue. Thus, the heavy burden then lies with the race promoters in course selection and in enforcement of best practices to minimize these impacts. The Leave No Trace Center for Outdoor Ethics continues to consult and support efforts from all sides to look at the issues adventure races bring our natural lands.

Kurt Achtenhagen, CPA, joined the Leave No Trace Center for Outdoor Ethics as the Director of Finance and Operations in June of 2003. He enjoys virtually all outdoor activities, and has been an internationally ranked adventure racer.

Team Four **Star Seductive Pony during** the whitewater paddling leg of

The four most popular outdoor activities: fishing, camping, hiking, and hunting

The four outdoor activities that are growing the fastest: snowboarding, mountain biking, kayaking, and wakeboarding

Highest annual days of participation of all outdoor activities: trail running

Percent of the US population that participated in some type of outdoor recreation during the last 12 months: 97.6%

Percent of the US population that says they have participated in outdoor adventure activities: 55.7%

Number of Americans who classify themselves as runners: 34 million

Number of runners who trained on trails at least 25 times in 1998: 1.1 million

Annual average number of days of participation for trail runners: 36

Altitude of the Everest Marathon, the highest marathon in the world: 17,000 feet

Date that Greek mythology says Philippides ran the 25 miles from Marathon to Athens: 490 BC

Average age of trail runners: 34

Percentage of trail runners who are female: 22

Percentage of mountain bikers who are female: 30

Average number of miles per week trail runners train on trails: 34

Percentage of trail runners who trail race: 69

Number of main types of adventure racing: 3 (expedition, stage and sprint)

Length of time teams race nonstop during the Eco-challenge expedition race: 4-12 days

Distance Eco-challenge teams cover during the race: 300 miles Number of mountain bikers that biked on trails at least 25 times in 2000: 1.7 million

Number of people in the United States who enjoy biking for fun or exercise: 84 million

Number of people who bike that sometimes do so on trails: 45.2 million

Amount that mountain biking grew in participation between 1987- 1997: 458%

Compiled by Stephanie Brooks

the Solomon X **Adventure Race** in Colorado. The team also completed trekking, mountain biking, inline skating, horseback riding, flat water paddling and rappelling duing the 36

hour event.



onotestromthefield

Jean West Wit Campus

In its sixth year, the Subaru/Leave No Trace Traveling Trainers (two teams of professional outdoor educators on the road all year) have logged close to half a million miles in their official Subaru Outbacks. The program has reached over 6 million people, in 48 states, with the Leave No Trace message.

Want to find out more? If you would like to see the **Traveling Trainers** in your area, or just find out more about the program, check out www.traveling trainers.org.

Want to see where the teams are and where they're

Go to: www.travelingtrainers.org "event calendar".

The 2004 National College Tour brings Leave No Trace into dozens of our nation's institutions of higher learning this year. Building on success of delivering Trainer courses and workshops to such schools as Princeton, Trinity University, Indiana University, and Clemson, this year's campaign promises to be even bigger.

During freshmen orientation weeks, thousands of new undergraduates around the country head outdoors in large groups for a late summer trip. These trips are outdoor introductions to college life as well as being opportunities to bond with classmates and future friends.

According to Rick Curtis, Directory of Outdoor Action at Princeton University, 52% of Princeton's first year students participate in six-day wilderness trips. In 2001, Princeton sent 613 students and 163 leaders out on 68 different trips in 7 states. Campus recreation, outing clubs and equipment rental services offer headed next? ample facilities and diverse programs that cater to the leisure needs of the university setting. Outing club directors are well and click on aware of the importance of having highly trained instructors to lead safe and lowimpact trips.

> This year, we have enjoyed the privilege of presenting workshops at the University of California in San Diego and San Francisco with an additional visit to Utah State University. I, Gabe, am a veteran university faculty member and can attest to the value of integrating Leave No Trace into one of my favorite courses,

Environmental Recreation, which includes classes on fly casting, backpacking, canoeing and first aid. Leave No Trace could not be a better fit!

We're riding the tip of the iceberg with over 2 million young people graduating from American colleges and universities each year. One school at a time, we plan to spread the word to the young adults who will be the next stewards of our outdoor landscape.

See you in class!

Marcia and Gabe



Subaru | Leave No Trace TRAVELING TRAINERS

giving a Towson University student the opportunity to hone his Leave No Trace teaching skills during this Trainer course in Shenandoah National Park. {above}

National College Tour Schedule

Feb 23: University of San Francisco, San Francisco, CA March 6: DePaul University, Chicago, IL

March 27-28: University of Arkansas, Fayetteville, AR

April 3-4: Clemson University, Clemson, SC

With the Board of the state of

May 15-16: Montana State University, Bozeman, MT

Sept 1-2: University of North Carolina, Ashville, NC

Sept 2: University of Colorado, Boulder, CO

Sept 10-12: Fort Lewis college, Durango, CO

Sept 14: Garrett College, McHenry, MD

Sept 23: University of Maine at Fort Kent, Fort Kent, ME

Life on the road is like the ocean; one moment the tide is high and the next the resilient inner tidal zone is revealed to the harsh elements of the new day. Inevitable stress, disorientation, funky

diet syndrome and "numb butt" are a few of the trials and tribulations we face when traveling across the country. On the flip side, crisp mornings, trail runs, hidden hamlets, and a little Bob Marley make everything all right.

This unconventional lifestyle that goes hand-in-hand with the Subaru Leave No Trace Traveling Trainer position comes naturally to us. Our backgrounds are in Environmental Education and Outdoor Recreation. Most of our time has been spent bouncing from one seasonal job to the next working as guides, forest rangers, and ski bums (yes, that can be a full-time occupation). When leading trips or teaching environmental education, the practice

and purpose of minimizing our impacts is essential to our curriculum and to maintaining the integrity of the natural areas we visit.

Not only are we familiar with working in the outdoors but we are also used to living out of our car, tent and on our friends couches, rent-free. Our inconsistent and ever changing livelihood seems implausible to some, but to us it is a way of being that forces us to stop and appreciate the finer things in life, such as our inter-relationship with nature, the importance of exercise, good old home cooking, and a cozy place to rest thy head.

When riding the current of life on the road we've learned that, not only does practicing Leave No Trace ensure a safe and exciting trip into the backcountry but it also benefits our crosscountry travels whether on foot or in our Subaru Outback. Using our trusty road atlas allows us to visit places off the beaten path and our digital camera lets us take home valuable memories. Our small plug-in teakettle and camp stove help us cook our favorite meal of rice and veggies

For more information contact **Traveling Trainer Team Coordinator** Laura@LNT.org or 1-303-442-8222 ext. 106

Interested in some new wheels? Save up to \$3000 on the purchase of a new car with the Subaru VIP program.

Find out more on page FIVE.

The Tide Aways Follows the Moon: Jean East



while enjoying the fresh air, or the freshly cleaned room of a hotel. Disposing of our waste is maybe the single most important part of living out of a Subaru. A carefully packed backseat is essential to finding those running shoes at the trailhead and let us not forget the importance of knowing the mileage to the next rest area.

With our abiding respect for nature coupled with good judgment and awareness, we explore these plentiful lands, day in and day out, just as our nomadic ancestors did trying not to leave a trace of our visit, only the memory of a land ethic for generations to follow.

Live life to the fullest, Save & Betsy

Sept 25-26: University of Maine, Orono, ME Oct 6: Ferris University, Ferris, MI Oct 9-10: University of Wisconsin, Eau Claire, WI

Nov 11-14: Baylor University, Waco, TX

Nov 19-21: Ole Miss University

Betsy in the

trainer course

classroom near

Fayetteville, AR on

the University of Arkansas leg of the

National College

Betsy and Dave,

a little shade in

Hueco Tanks, TX.

{below}

the new Traveling

Trainer Team catch

Tour. {above right}

Dates to be Announced: University of Georgia University of Southern Georgia

masterlinkopartners

Suors.

This bear ponders his options as NOLS tests new bear fences at the West Yellowstone Discovery Center.

AMC Teaching Tip

Have you ever been trying to explain what Leave No Trace is all about to someone you've met on the trail, and instead of an interested response of "please tell me more," you're met with "I've heard about those crazy tree-huggers who try to tell everyone they can't have campfires and should carry their poop out of the woods"?

Gently educating people about impacts and encouraging them to change some of their actions is usually more effective than pushing them to do things that are far beyond what they might consider reasonable. We don't want to completely turn them off to all things associated with the phrase Leave No Trace by pushing them beyond their comfort zone.

So share a roasted marshmallow over a small, appropriate fire in an established ring with the camp neighbor who claims "those Leave No Trace people think fires are evil," taking the opportunity to discuss the principle of Minimize Campfire Impacts. Remember to be reasonable when trying to teach those who might be resistant to Leave No Trace.

Dara Johnson is the Appalachian Mountain Club's Leave No Trace Coordinator

portable electric bear fences as food storage solution

Anyone who has ever traveled in bear country has faced the dilemma of keeping food away from bears. Bear tubes are heavy and sometimes not roomy enough to hold several

days of food. Hanging food potentially creates impacts on trees and the surfaces under them. There are also the potential hazards of climbing trees or throwing ropes. And in spite of your most inventive strategies, a clever bear will sometimes outsmart you and get the food anyway. All too often this leads down a path that usually ends tragically for the bear.

In May of 2002 NOLS began experimenting with various food storage devices for traveling in bear country. Due to the extended nature of NOLS expeditions, most of the commercially available products were either not practical or not effective Some variations on the various storage tubes were designed without much

success before our research department began to seriously explore the concept of lightweight electric fences. Prototype fences were developed and tested on captive bears at the West Yellowstone Discovery Center in Montana in 2002. Meanwhile, the Wyoming Department of Game and Fish were testing them on wild bears in the Southern Absaroka range east of Yellowstone.

The prototypes worked well enough that NOLS was granted permission by the Shoshone National Forest to use them on courses that summer. After more than I,000 user nights, the fences were deemed largely successful, although there were some problems. On two occasions the fences were knocked down, presumably by bears unable to see them in the dark (blinking lights for the cables were added to correct the problem). There were also a few cases of charger failure. In all instances bears were still not able to get to the food, though all of these initial problems have been corrected.

The portable fences currently in use weigh between 6 and 8 pounds, fit into a small duffel that is easily strapped to the side of a backpack and can be assembled and activated in under 5 minutes. In addition to being a reliable and lightweight storage device the fences may act as a deterrent for contact with human food. For more information and video of testing on captive bears visit NOLS' research page at www.NOLS.edu.

Michael Cheek is the Leave No Trace Program Coordinator for the National Outdoor Leadership School (NOLS).

Look for the 2004 Master Educator Course Schedules from AMC and NOLS on page THREE.

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See you at the Top, Denver, CO Student Conservation Association, Seattle, WA Show Me Missouri Chapter Backcountry Horsemen of America, Republic, MO Sierra Club Foundation, San Francisco, CA The River Alliance, Columbia, SC The Sierra Club, San Francisco, CA The Tahoe Rim Trail Association, Incline Village, NV United States Snowshoe Association. Plattsburgh, NY Washington Water Trails Association (WWTA), Seattle, WA Wilderness Adventure Eagle's Landing, Newcastle, VA Wilderness Education Program, Venture, CA Wilderness Volunteers, Portland, OR Wind River Backcountry Horsemen, Riverton, OR

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"Everyone must believe in something. I believe I'll go canoeing."

-Henry David Thoreau A CLEAN KITCHEN

TECH TIPS

Cooking is messy business wherever you are. A sure-fire way to make the clean up easy when you're outdoors is to use a tarp in your outdoor kitchen. It will catch food scraps, small pieces of trash and other garbage that should be packed out or thrown away. From pieces

thrown away. From picnics and car camps to backpacking trips, tarps provide and easy way to keep your kitchen clean.

Dog Do
Dog waste can be a serious problem. With so many people getting out with their dogs, the potential impact to the environment is great.

The solution is simple—clean up after your dog. Plastic grocery or newspaper bags work well. Before leaving the trailhead, tie a bag or two to your dog's collar so that you'll have them easily accessible and ready to use.

"Pleasant" waste on the river

If you're using one of the newer double-bag waste disposal systems such as blue bags or Wag bags, use a military surplus ammunition box, a.k.a. rocket box, to store the bags in while on the river. Rocket boxes are available at Army/Navy stores or rafting equipment companies, and provide a durable, waterproof container for the bags that can easily be strapped into a raft. To make the task of emptying the box at the end of the trip a little more agreeable, consider lining the box with a contractorweight trash bag and putting an air freshener in the box as well. Since many brands of waste disposal bags can be put in with your regular trash (check with the manufacturer to make sure their product is approved for landfills), having the individual bags already contained in one large heavyduty trash bag makes throwing them away a cinch.



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