

Outdoor Action Leave No Trace Feather Foundation Grant Report



Grand Canyon – October 2013

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Executive Summary

The Feather Foundation funding of the Outdoor Action Leave No Trace Master Educator Program has transformed the way that OA Leaders learn about, understand, and implement Leave No Trace practices within OA programs. We are exceedingly grateful to the foundation for its support. Prior to the implementation of this program OA Leaders received only cursory instruction about basic Leave No Trace practices. Now all OA Leaders complete a two-hour Leave No Trace Awareness course and receive additional instruction during their Leader Training Trips as well as a refresher just before Frosh Trip.

Outcomes

This is the third year of the program and we have now have trained three cohorts of Leave No Trace Master Educators for a total of 21 students. This year, thanks to better advance planning, we were able to get the Master Educator course to happen over Fall Break. That has given us a big head start on Leave No Trace training for this academic year. The new Master Educators were able to start training new leaders at the very start of the spring semester so in future years we will continue to schedule the Master Educator course over Fall Break.

Leave No Trace Master Educators

First Name	Last Name	Class	Cohort	Trip
Grace	Li	2014	1	March 2012 - Galiuro Mountains, AZ
Anna	Nilles	2014	1	March 2012 - Galiuro Mountains, AZ
Simone	Sasse	2014	1	March 2012 - Galiuro Mountains, AZ
Kristie	Schott	2014	1	March 2012 - Galiuro Mountains, AZ
Caroline	Stone	2014	1	March 2012 - Galiuro Mountains, AZ
Regina	Wang	2014	1	March 2012 - Galiuro Mountains, AZ
Naomi	Zucker	2014	1	March 2012 - Galiuro Mountains, AZ
Miranda	Bernard	2015	2	March 2013 - Galiuro Mountains, AZ
Joseph	Bolling	2015	2	March 2013 - Galiuro Mountains, AZ
Renata	Diaz	2015	2	March 2013 - Galiuro Mountains, AZ
Holt	Dwyer	2015	2	March 2013 - Galiuro Mountains, AZ
Brian	Reed	2015	2	March 2013 - Galiuro Mountains, AZ
Dawn	Wang	2015	2	March 2013 - Galiuro Mountains, AZ
Nick	Barton	2016	3	October 2013 - Grand Canyon, AZ
Avery	Forrow	2016	3	October 2013 - Grand Canyon, AZ
Katie	Glockner	2016	3	October 2013 - Grand Canyon, AZ
Manali	Gokhale	2016	3	October 2013 - Grand Canyon, AZ
Kenny	Hubbell	2016	3	October 2013 - Grand Canyon, AZ
Preston	Kemeny	2015	3	October 2013 - Grand Canyon, AZ
Todd	Kranenburg	2015	3	October 2013 - Grand Canyon, AZ
Christine	Smith	2016	3	October 2013 - Grand Canyon, AZ

Since last spring the Master Educators have been very active. They have been teaching the Leave No Trace Awareness class to new leaders and implemented a refresher training for all of the returning leaders just before Frosh Trip to help them communicate Leave No Trace principles to their freshmen. Here are the results of our training efforts over the past year.

March 2013 – March 2014	Students
Spring 2013 Leader Training	61
Frosh Trip 2013 LNT Refreshers	207
Fall 2013 Leader Training	41
Spring 2014 Leader Training	51
Total Leaders Trained	360
Freshmen Participants Frosh Trip 2013	713
Total Students trained in some level of LNT	1,073

New Initiatives

After three Master Educator trips we now have a large enough cadre of instructors to be able to expand our programming. This has always been one of the goals of the Feather Foundation sustainability initiative, not only to provide training for future OA Leaders, and by extension to over 700 freshmen each year, but also to use the skills of the Master Educators in offering programming to local secondary schools. In January two of the new Master Educators did a presentation for OASIS (Organizing Action on Sustainability in Schools) a group of Princeton area secondary schools with sustainability programs. The students presented on what LNT educational offerings they could provide to local schools.

This spring, Princeton's Master Educators began environmental outreach projects at several local elementary and high schools. The group has designed a series of age-appropriate activities with the goal of improving environmental awareness and assisting students in developing their own outdoor ethics. In the coming weeks, the Master Educators will be giving classes at the Waldorf School of Princeton (working with their third and sixth grade classes), and at Hightstown High's environmental club meetings. The Master Educators are also in the process of establishing themselves as a certified campus service project at the Pace Center for Civic Engagement. In addition, the outdoor program at Rutgers has reached out to us to run a two-day Leave No Trace Trainer course for students in their outdoor program in September. In the future, we hope to expand this outreach program to reach even more interested schools and students.

Expenses

The expenses for this year's program were for the Master Educator course with NOLS over fall break 2013. The Feather Foundation grant covered the majority of the tuition cost for students and OA covered the remainder including all of the transportation costs.

Item	Amount
NOLS Tuition (8 students)	\$6,200.00
Airfare (8 tickets)	\$4,843.20
Airport Shuttle - NJ round trip	\$527.78
Airport Shuttle - AZ	\$1,504.00
Student Expense Reports	\$857.18
TOTAL	\$13,932.16

Student Reports

Manale Gokhale '16

Hiking into the Grand Canyon may be one of the most awe-inspiring ways of interacting with the natural world. It is challenging to discuss the importance of reducing human impact on nature in a classroom completely cut off from the outdoor environment. Immersion in the environment we were aiming to protect lent a new sense of importance to our goals. As we hiked, our course instructors were able to point out the variety of flora and fauna and tell us a little bit about each species. I became increasingly familiar with the unique makeup of this arid environment, and this familiarity rooted our conversations on the importance of preserving it.

Our trip leaders, a NOLS instructor and a Grand Canyon park ranger, were incredibly knowledgeable not only about the Leave No Trace principles and the ecosystem of the Grand Canyon, but also of the pedagogical tools we could use to pass down this knowledge. I was able to develop my own model of finding teachable moments and effectively managing discussions in the backcountry. The change in environment requires a very different set of tactics than teaching in the classroom, something I hadn't realized before. While practicing delivering lessons, I benefited greatly from the critiques provided by our experienced trip leaders, as well as the other students on the trip.

Despite its somewhat imposing nature, the Grand Canyon is a much more delicate environment than I ever would have believed without experiencing it firsthand. Cryptobiotic soil is often given as an example of one of the most delicate types of surfaces encountered in the backcountry, and plays a vital role in preventing erosion. A single footstep placed on this soil crust will kill the microorganisms that make it up, and it may take up to a century for the soil to recover from the damage from this single footstep. During this trip, I was able to see this delicate part of the ecosystem in person, and could better appreciate its importance in context of its surrounding.

Apart from providing beautiful view after view, the Grand Canyon's austere nature makes it impossible to avoid introspection while hiking through its immense landscape. Through this time for reflection, combined with the nightly group discussion on wildland ethics, I was able to

better define the relationship I want to have with nature. Namely, I realized that I wanted it to play a role in my life beyond Outdoor Action. This trip has inspired me to try and take my skills as an LNT Master Educator to places outside the Princeton community. I'm grateful for this opportunity to explore such a rich and beautiful environment, develop my personal ethical code as it relates to nature, and to pick up the tools to help others develop their own convictions.



Nic Barton '16, Todd Kranenburg '15 and Manale Gokhale '16 heading down into the Canyon

Preston Kemeny '15

When I set out for the Grand Canyon with a group of OA leaders I knew that we were in for a fun week. What I didn't know, and what would turn out to be the defining characteristic of my experience, was that our week would be filled with thought provoking discussions and practical techniques for living LNT. The course perfectly intertwined deep thought with intense physical exertion, all within the context of a pristine environment, giving me new understanding of how lessons learned in the backcountry can be applied in my everyday life.

I'm a Geosciences major, meaning that I spend the majority of my time studying how environments form and react to different climactic conditions. As with any other field, however, it is easy to get bogged down in theories and mathematics that separate you from the object of study. My experience on in the course was very much one of revitalization; living and working in the Grand Canyon while discussing preservation rekindled my passion for the environment. As a result of my experience I'm now pursuing a minor in Environmental Studies and encouraging other to do the same.

I really believe that the LNT Master Educators course is one of the most amazing opportunities at Princeton. While it's great that the students lucky enough to go on the trip gain a new perspective, Outdoor Action has built an extremely strong infrastructure for spreading that knowledge and that passion to the entire leader community, and to Princeton's campus at large. It is a huge accomplishment that OA manages to make 6-8 new LNT Master Educators a year, but it is an incredible accomplishment that OA leverages those ten to train hundreds. I'm very grateful to have had such a powerful experience on my trip and to be involved with such a great organization, and I can't wait for the end of winter so I can hit the trail with a new group of students.



Katie Glockner '16, Todd Kranenburg '15, Avery Forrow '16, Nic Barton '16, Preston Kemeny '15, and Christine Smith '16 checking out canyon history

Kenny Hubbell '16

I've had the good luck to spend much of my life in landscapes that are both beautiful and challenging, places that are awesome in the original sense of the word. I grew up in Anchorage, Alaska and spent a year at altitude in the Andes in South America. In locations like these, I developed a sense of respect and reverence for nature, but my involvement with the Outdoor Action program at Princeton has led to an infinitely more mature view of my interaction with the backcountry.

As I went through LNT trainings on campus as an OA leader, I began to realize that I tended to view interactions with nature as one-sided. I had seen the power that mountains had over me, or the ways that animals could threaten me, but I never gave much thought to the power that I had over my environment. As I became more interested in outdoor leadership and education at Princeton, I got a better sense of the scope of human activities that went on in the backcountry.

Between LNT trainings on campus from Master Educators and discussions with co-leaders, I found myself thinking more about how I interacted with nature, and how the OA program as a whole was trying to instill a sense of values in both participants and leaders. Motivated by a broader concern for environmentalism and a more specific interest in the way that I and my groups used LNT principles, I decided to pursue a LNT Master Educator course through OA.

Our course in the Grand Canyon presented me with a completely novel land. I'd never seen anything like the warm earthen colors of the canyon, and there was a humbling sense of immense time that comes from looking up at the countless strata of rock in the canyon wall. Examining Leave No Trace education in that environment made the themes of conservation and preservation infinitely more meaningful than they may seem in classrooms discussions or when displayed on diagrams in pamphlets. While the trip as a whole taught me many practical skills—from how to incorporate games into LNT lessons to specific practices for making campfires lower impact—I think that my most important insight from the trip was this: Leave No Trace comes to life when examined and taught in natural places, when it is explained in the context that it serves to protect. Discussions of conservation and preservation can become infinitely more powerful when they draw on the vulnerability of beautiful surroundings, and I felt like I left with a greater sense of personal responsibility. Moving forward, I want to extend my respect for the environment beyond my personal actions and take responsibility for educating others.

Working as part of an outdoor program, we have a unique chance to lead discussions about LNT in settings that inspire people to examine their own values. In my next three years of leading freshman trips, and my time as a master educator on campus, I'm excited to draw on the "authority of the resource," the delicate beauty of our surroundings, as I share my knowledge of LNT.



Todd Kranenburg '15, Preston Kemeny '15, Nic Barton '16, Manale Gokhale '16, Kenny Hubble '16, Katie Glockner '16, Christine Smith '16 and Avery Forrow '16 on the South Rim

Nick Barton '16

If there is one place in the world where the importance of the Leave No Trace wilderness ethic is most striking it is the Grand Canyon. Being surrounded by the majesty of the Canyon, and knowing that I was just one of several million people who had visited and enjoyed its beauty, really highlighted the importance of preserving the pristine nature of the outdoor spaces we use and enjoy.

Travelling through the sparse brush of the mesas and valleys of the Canyon, with the knowledgeable NOLS staff intermittently delivering lessons on the human and natural history of the area, I was blown away by how deeply I cared for the well-being of the land. Interspersed with our expedition were discussion-based lessons on the nature of wilderness ethics, developing our own ideas and cultivating this growth in others. My own reflection on my love of the backcountry combined with the ideas and feelings of the other members of my trip allowed me to fully understand my own desire to see the environment treated with the respect that it deserves.

Before travelling to the Grand Canyon, my ideas of LNT were limited to a set of rules to be followed. Now, I'll be leading Frosh Trip with a newfound sense of responsibility for maintaining the outdoor spaces we use and hopefully passing on this message of respect and responsibility to the freshmen, skills that can serve them well in their first year at Princeton.

Having the opportunity to develop my own sense of backcountry ethics in such an awesome environment leaves me excited to teach the LNT awareness workshops with OA. Although I know that Princeton's classrooms do not invoke the same sense of awe as the Grand Canyon, I hope that I will also be able to help future OA leaders develop their own moral code towards responsible use of the outdoors. Beyond my responsibilities as an OA leader, I am also looking forward to the chance to bring the principles of Leave No Trace to other organizations and to my own daily life.



Kenny Hubble '16, Todd Kranenburg '15, Manali Gokhale '16, Katie Glockner '16 and Preston Kemeny '15

Christine Smith '16

The last night in the Canyon, my fellow soon-to-be Master Educators and I sprawled out beneath a deep blue sky, and watched shooting stars streak silently across the horizon. That clear, pristine night sky had become emblematic for us over the course of the trip, and it was the first chance that many of us had ever had to see an open sky so unencumbered by light pollution, unblocked by trees above. Looking up at that sky, how could anyone not understand the importance of Leave No Trace and wilderness ethics?

For me, one of the most important messages I took away from the Master Educator Course was that LNT is not merely a set of principles or rules, but a baseline for establishing your own wilderness ethic. A wilderness ethic determines not only how you view the world around you, but also how you behave towards it and how you choose to live in it. Our own personal, growing

wilderness ethics were the subject of many thoughtful and engaging trail conversations, and we shared more of them and ourselves as we became closer as a Master Educator class and as friends. Along the way, we spoke too of how we could share these wilderness ethics with the students we teach back at Princeton.

The discussions we had about teaching and imparting what we had learned on our trip were enormously beneficial, and each one was backed by our experiences in teaching the group one principle of Leave No Trace while on the trail. Planning a lesson and executing it in the unpredictable environment of the Canyon made me comfortable with preparing to teach lessons back at Princeton. The teaching techniques I learned during this course are techniques I have used over and over again in my other tutoring activities here as well, whether I am tutoring a sixth grade girl from Trenton on subject-verb agreement or helping a high school boy prepare his college essay. Ultimately, the LNT Master Educator Course gave me the tools I needed to teach any subject, but especially to impart my new wilderness ethic to my fellow students at Princeton.

The idea that Leave No Trace is about more than just a set of principles is the message I found most compelling on the trip, and it is what I wish to impart to the leaders that I educate this spring and to the freshmen that I take on my trip in the fall. Even though we were hiking in one of the Seven Natural Wonders of the World, the message about the importance of caring for such a beautiful world transfers easily to Princeton. In fact, only one year earlier during my freshman fall, I had found myself staring up at the same starlit sky (albeit less bright against the lamppost lights) with my freshman advisee group. Now, back again under the same night sky, I recognize it for the natural beauty that it is and I hope that through my teaching I can remind others of this and of when they have recognized the same. I am very grateful to have had the opportunity to be a part of this wonderful trip this year, and I'm excited to share all that I have learned.

Katie Glockner '16

Going to the Grand Canyon in October was beyond amazing. In the five days our group spent in Arizona, we learned so much about the Leave No Trace ethical principles, how to practice those principles, and how to develop our own LNT code of conduct. Starting the trip, I thought that the Leave No Trace program was just about following rules. However, talking with our amazing leaders, Phil Branca from the NOLS program and Grand Canyon Park Ranger AJ Lapre, and with the other members of the Princeton group I learned that truly practicing Leave No Trace is about creating your own wilderness ethic. I learned how to have a backcountry campfire while creating minimal environmental damage by building a mound fire – only in places where it is legal! I learned about different ways to bear-bag and about the importance of respecting other campers, even in small ways like minimizing your campsite's visibility from the trail or wearing clothing more likely to blend in to the environment.

I also learned about the Grand Canyon's impressive history and its incredible frailty. As we went into the backcountry campsites, we could see how easily people had killed the plants within this fragile ecosystem without intending any harm. For instance, we saw a lone hiker camping in a

small thicket on the side of the trail because he did not have a registered campsite. As AJ, the ranger, went over to talk to him and ask him to move, we could already see some of the evidence of his brief stay in broken branches and crumpled plants. In the Grand Canyon, plants do not grow back quickly or easily. Simply stepping on one or placing a tent over a few can destroy them and make it difficult for life to grow back in that area. This phenomenon emphasized just how important focusing on maximizing impact on highly impacted areas can be. If everyone tried to camp outside of the registered campsites as he did, then soon few areas would be left natural, especially in a desert ecosystem where plants take years and years to grow and only seconds to die.

Thank you so much for providing me, and all of us, for the opportunity of a lifetime. I cannot begin to express how much we appreciate the Feather Foundation's support!

Avery Forrow '16

Going to the Grand Canyon to learn about and learn how to teach LNT was one of the highlights of my fall. Not only was discussing the principles of LNT thought provoking and enlightening on its own (each student and instructor brought their own perspectives on what LNT means and why we should practice it and share it) but the Grand Canyon was the perfect place to do it. The Grand Canyon embodies everything I love about the outdoors and reinforces all of the reasons why LNT is so important. It is awe inspiring, it is beautiful, most of it is untouched and it gets 5 million visitors every year. Even though most of these visitors do not enter the canyon, choosing to stay on the rim, it's pretty clear that each visitors impact, in the form of a soda can left behind or a plant taken away, can be multiplied by the hundreds or thousands of other visitors who will make the same choice.

Since coming back from my trip I have had the opportunity to share what I learned with a group of students with whom I am currently traveling in China. They had never heard of LNT before, but now frequently look at trash on the streets or on a hike and say "that isn't very LNT." Not all of them spend as much time in the outdoors as I do and not all of them will change their behavior drastically because of our short conversation, which centered largely on LNT in the front country, but I am a firm believer that every little bit counts, and that with the right knowledge people tend to do the right thing. LNT should be common knowledge and common practice, and Princeton's efforts to include its basic principles in every orientation trip it sends out makes it, if not common practice, at least common knowledge on our campus. Before the LNT master educator trip I was in full support of OAs internal dedication to LNT, but after the course I have started to see how we can spread LNT beyond Princeton. I started doing that in China this spring and I know the other Master Educators on campus are working to bring LNT to nearby schools and outdoor programs. I know I want to be able to return to the Grand Canyon in a decade or in three and see the same canyon I saw this fall, I know I want to be able to go to the Amazon and find that there is still a rainforest there, and I know that spreading awareness about LNT is one of the easiest ways for me to make sure that those things can happen.