

# Educational Adventures to Benefit Environmental Awareness and Attitude

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## **Abstract**

Outdoor recreation is a growing industry and it provides a great opportunity to conserve wildlands. Wildlands are constantly being sacrificed for resource extraction and other ecosystem harming uses. Recreators, being directly involved in their environment, are in a perfect position to understand the intrinsic value of a place and the importance of its protection. This could promote environmental advocacy, awareness, and action. With this in mind, this capstone will expand upon the recreational experience by facilitating environmental education and stewardship for college students on two adventure based trips taking place Spring term of 2019.

## **Introduction**

Our nation's wild places are constantly being threatened by human impact. The most threatening human impacts to our wild places is the extraction of resources caused by logging and mining. Many ecosystems and wildlands can generate a large amount of income in a short period of time from people extracting these resources, but at what cost to the environment? Denying people that income in favor of environmental protection is extremely difficult because there is generally no tangible monetary benefit to conservation. However this is not entirely the case, many of these places can be valued not only for their ecosystem services, but the value people receive from their recreational opportunities. Recreation brings in 2.2% of our GDP every year (Outdoor, 2016). Recreation is a powerful tool that can shed light on the negative impacts of resource extraction. It opens up an opportunity to teach the value of unimpacted land. It would be foolish to ignore the potential for environmental protection through the support of outdoor recreators. This capstone project will put these ideas into action by providing a recreational experience in lands that are in need of protection and conservation. While also providing education and stewardship opportunities for students to experience.

Outdoor Recreation creates a relationship between people and their environment. With an increase in technology, people are spending less time outside. Most people who value wild places have learned its value from positive memories and experiences in the outdoors (Alan). These experiences include feelings of “loss and longing” if a loved place was destroyed or changed (Newhouse). Providing this personal

connection is the closest we have come to being able to teach the intrinsic value of a place--in today's society this value is everything. If we cannot place monetary value on something the risk of losing it becomes greater. This makes conservation an extremely hard idea to pitch. Ecosystems have values based on the services they provide, the most effective of these services is tradable goods through human actions. Recreation provides a way to give value to wilderness that is learned through value of experience. That value is less direct but without a doubt still powerful as it provides an emotional and social service.

While recreation has its own impacts on the environment, it provides a great opportunity to learn about wild places and how we can protect them. Outdoor classrooms are an important tool that can be used to educate people about the places they inhabit. Teaching about one's environment is essential as it “encourages an understanding and appreciation of natural systems” (Newman). This teaches people the information they can utilize to be involved with their community. Scientists should not be the only people with knowledge of the natural world. Communities with knowledge about their wild lands are likely to make thoughtful informed decisions.

A large barrier of environmental action is the feeling that one doesn't have power to produce change. One reason for this is external locus of control, where you believe that change comes from a higher power like the government, your boss, etc. Internal locus of control instills the belief that change comes from personal actions (Newhouse). Informing people about their environment and empowering them to take action breaks down that barrier (Newhouse). This will mitigate the bystander effect, with this in mind we will be creating recreation experiences with a focus in education and stewardship.

Using our previous outdoor leadership experience, we facilitated trips with a focus on education and stewardship. We have gained experience working with nonprofits and educators to coordinate events that will have an authentic positive impact on the participants. These trips will serve as practical experience for our careers in adventure programming and environmental education, while also hopefully fostering a new love of the outdoors for the students who participate in our adventures.

## Methods

In order to develop a successful applied project we developed a set of goals to guide us through the process:

1. Facilitate an outdoor education experience for college students
  - a. Education
  - b. Recreation
  - c. Stewardship
2. Have a positive impact on our participants/recreation sites (leave them better than we found them)
3. Personal development
  - a. Collaborate with a Local Non-Profit
  - b. Collaborate with Educators
  - c. Develop and Improve our Leadership Skills

### Trip Planning:

Trip 1: Rouge River Restoration Rafting

Education Partner: Southern Oregon Land Conservancy

Trip 2: Castle Crags Geology Hike

Education Partner: Dr. Charles Lane

In order to guide a group of students outside, we collaborated with the SOU Outdoor Program. The Outdoor Program provided us with planning tools to ensure our trip runs safely. The Trip Planning Document requires you to think of all aspects of a trip.

Including:

- Location and Driving Directions
- Pack Lists
- First aid and the nearest hospital
- Itinerary
- Potential hazards and risks

- SOU Van Reservation

Our advisor Willie Long (Outdoor Program Coordinator) helped us review the trip plan to ensure we were prepared. Working with the Outdoor Program allowed us to cover our trips liability and ensure that all volunteers were properly certified in Wilderness First Aid. Each participant was required to fill out a liability waiver and health form with their emergency contact info and other pertinent health information that could affect their experience while out in the field.

Budget:

Our project takes place off campus and therefore requires transportation costs. To fund our project we applied for the Green Fund in January. Our application was denied and we moved forward with our advisor Willie Long from the Outdoor Program. He supported us by donating funds to pay for a portion of transportation. The rest of the funding was personally funded by Kira and myself. We also implemented a small trip fee from the participants. The Rouge River Trip was six dollars and The Castle Crags Geology Hike was ten dollars. All extra funds from participation fee went back to the OP to help with the transportation cost.

### Budget Worksheet

revised 10/2018

Van Cost				
2	0.65	80		104
Total # of Vehicles	\$ Per Mile	Miles Per Vehicle		Driving Cost
2	55	1		110
# of Vans	\$ Per Van Per Day	# of Days		Van Rental Cost
Food Cost				
7	14	4		84
# of Volunteers	Minimum # of Participants	\$ Per Person		Food Cost
Other Costs				
			List "Other" Costs Below	
16	0	0		16
Parking Fees	Shuttles	Other		Additional Cost
Total Cost Calculations				
214	84	#REF!	16	314
Total Driving & Van Cost	Total Min. Food Cost	Unsubsidized Staff Pay	Additional Cost	Total Cost
314	14			22.42857143
Total Cost	Minimum # of Participants			Cost Per Participant
				Cost after OP Support
				100
				Final Cost
				7.142857143

### Budget Worksheet

Van Cost				
1	0.45	200		90
Total # of Vehicles	\$ Per Mile	Miles Per Vehicle		Driving Cost
1	55	1		55
# of Vans	\$ Per Van Per Day	# of Days		Van Rental Cost
Food Cost				
4	7	3		33
# of Staff	Minimum # of Participants	\$ Per Person		Food Cost
Other Costs				
			List "Other" Costs Below	
16	0	0		16
Parking Fees	Shuttles	Other		Additional Cost
Total Cost Calculations				
300.7	33		16	194
Total Driving & Van Cost	Total Min. Food Cost		Additional Cost	Total Cost
194	7			27.71428571
Total Cost	Minimum # of Participants			Cost Per Participant
				Total With OP Support
				49
				Final Cost
				7

### Education Planning:

For the education portion of our trips, we reached out to local educators to join us and give an educational talk. For The Rouge River Trip, The Southern Oregon Land Conservancy provided this and for The Castle Crags Trip we reached out to SOU Professor Dr. Charles Lane. Before each trip, we met with these experts to discuss lesson topics and logistics.

### Marketing:

This project relied on participation from other students. In order to gather participants we used as many resources we could to spread the word. We made digital advertisements that were displayed in the Student Recreation Center and the Science Building. We also utilized Social Media and got permission to advertise on the Outdoor Program's Facebook and Instagram. We also sent out emails to the Environmental Science Majors and Minors and the Outdoor Adventure Leadership Majors and Minors. Kira and I both talked to classes about our projects and encouraged people to sign up.



### Post Trip Survey/ Feedback:

For each trip, we distributed a survey to gauge the quality of our trips with respect to education, and overall experience.

Questions:

1. What did you like most about this trip?
2. What would you like to see us improve on for this trip?
3. Did you enjoy the food that was served? Recommendations?
4. Was the equipment suitable and adequate?
5. What did you think about the progression of the trip?
6. How were the Volunteers, educators, guides?
7. On a scale of 1-10, how would you rate this trip?
8. How did you find out about this trip?
9. How was the Education/Stewardship portion of this trip? (What did you learn or want to learn?)
10. Would you recommend an Outdoor Program education/stewardship trip to a friend? Why?
11. Was the driving on this trip handled in a safe and responsible manner?



## Trip 1: Rouge River Restoration Rafting



### Description:

This trip took students to the Rogue River Preserve a 352 acre land parcel owned by the Southern Oregon Land Conservancy. This piece of land has been untouched for hundreds of years and passed down by generations until finally ending up in the hands of The Conservancy. Our visit took us to an island near Dodge Bridge County Park where we completed the stewardship component of the trip. Kristi, our partner from the Conservancy, brought her knowledge and tools to remove the invasive species inhabiting the island called Scotch Broom. The species was brought from Europe as an ornamental plant, unfortunately, it has outrun many of the native species in the area. Our goal was to remove as much as we could in the few hours we spent on the island. Participants spent about two and a half hours removing Scotch Broom and we were able to clear a large meadow.

Participants: 14

Volunteers: 4

Boats: 4

### Itinerary:

6:00 am staff arrive  
7:00 am participants arrive  
8:10 am depart SOU  
9:30 am arrive at Takelma County Park  
10:30 am SOLC arrives w/ tools  
10:45 am put in  
11:30 am arrive at the island ate lunch  
12:15 pm presentation by SOLC  
12:30 pm start removing scotch broom  
3:00 pm load boats  
3:20 pm take out dodge bridge  
4:00 pm depart for SOU  
5:00 pm Arrive at SOU  
5:30 pm dismiss participants

### Participant Experience

After each trip we sat down and looked at our trip evaluations. These are a few of the student statements from the evaluation:

“Taking part in the Rogue River Restoration trip opened my eyes to how simple it is to take part in a restoration project. Though I know very little about the planning that went into this, the rafts, nature conservancy, food, driving, and plant removal ran smoothly and was enjoyable to be a part of. It's a good reminder that if you think you don't have time to better the environment, or you think it's too hard to do anything worthwhile, you just need to get out there and do something!”

“I was super stoked to get to know the places I visit recreationally! Learning the history of both Scotch Broom and the Rogue River, it left a lasting impact that really enhanced my initial visit, but also made me want to get more involved in some way. The overall all



experience of the trip was a really pleasant introduction to giving back to the places that give me so much.”





## Trip 2: Geology at Castle Crag



### Description:

This trip took students to the beautiful Castle Crag State Park. Partnering with Dr. Charles Lane we were able to provide a stunning hike and educating experience. Charles was kind enough to give up his Saturday to teach the geology of the granite formations within the park, as well as the surrounding features like Mt. Shasta and the Trinity Alps. Castle Crag is a pluton that was formed underground by magma cooling slowly and now over thousand of years has become exposed. Erosion and frost wedging have created the landforms we see today and will continue to change these formations over time. The Granite is composed of feldspar, Trondhjemite, granodiorite, and ribbons of quartz. After Dr. Lane's lecture, students were able to explore and continued to ask questions about the features around them.

### Itinerary:

6:00 am staff met at OP, prepped food for wrap buffet, gathered paperwork, picked up vans

7:00 am participants arrived, filled out waivers, introduction

8:00 am Left campus for castle crags

9:30 am arrived at castle crags

9:40 am started the hike

12:30 pm at the top, ate lunch

1:40 pm began hiking down the trail

3:50 pm arrived at vans

4:00 pm left for campus

5:30 pm arrived on campus

5:45 pm dismissed all participants

### Participant Experience

“It is important to see the outdoors as more than recreation.”

“I Learned things I never even thought about before, like rocks forming underground!  
I think Everyone should experience it”

“ I really enjoyed this trip this is not something I would have done on my own and I am grateful for the experience. This hike kicked my but! but I got to learn about a beautiful place with some awesome people.”





## Reflection

### Challenges

Obtaining funding for transportation was one of our biggest challenges in the trip planning process. Unfortunately, our Green Fund Application did not get accepted and we had to come up with other ways to get the trips out without having to pay out of our own pockets. Thankfully we also had the support of Willie Long who offered to cover most of the transportation cost. The rest was covered by a small trip fee from the participants.

We anticipated it would be a challenge to fit all of our goals (education, recreation, and stewardship) into our timeline. Because our trips were only day trips, we had limited time to fit in all of our objectives. Sticking to our planned itinerary allowed us to keep our travel and prep time efficient leaving plenty of time for the education and stewardship components.

Communication for our Rogue River trip proved to be difficult as well. The dates were confused, leaving our volunteer from the conservancy rushing to arrive on time. Luckily, we were able to facilitate games and safety talks while we waited for her arrival. This kept participants engaged. In the future, we would like to communicate with more than two people from the conservancy to ensure problems like this are caught ahead of time.

The trip evaluations could definitely could have been improved. I think the questions we ask were probably to vague for participant to really tell us what they though. Also we might benefit from sending it out via email after word so people could really take their time instead of the day of when they were trying to hurry and leave so they could get dinner.

## Successes

Our collaborations were the most valuable part of these trips. We took care to partner with people who would really immerse themselves in the trip and be involved with our participants. Charles Lane and Kristi from the Conservancy were great assets and provided a deeper educational experience than what Kira and I could have.

Dr. Lane was also able to connect the geology with the park's history of recreation in rock climbing first ascents. He informed the students about the first ascent of The Ogre by Sir Chris Bonington's. The climb now known as Cosmic Wall. This connection illustrates the importance of the history of recreation and how it has added value to Castle Crags.

When deciding on locations, we tried to choose a balance of recreational and educational opportunities. For both trips, we prioritized education. While the recreation components were exciting, they did not provide significant challenge to the participants. This created more equal opportunity for students to participate, no matter their experience level.

Participation was another great success. I was unsure of what the interest in this type of trip would be. With the help of marketing and getting out and talking to people about our trips we ended up over-filling our trips and unfortunately having to turn people away because our vans were full.

## Application to Future Goals

These trips served as great experience for future jobs in environmental education. I feel much more confident in my planning and leadership skills. Understanding the process of planning a trip like this and coordinating with multiple entities proved to be a very valuable experience. Providing a theme or focus to a recreation trip helps provide greater meaning and inspires more participation. We found that people were naturally curious about the areas that we visited, and they were inspired to give back. Though we budgeted our time well, in the future, it would be ideal



to have more time to plan and work on logistics. I would love to do something like this as a full time position. I could really sink my teeth into longer multi-day trips.

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