

Silver Creek Preserve
The Nature Conservancy of Picabo, Idaho
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Before I applied for the Internship I was looking for an Internship that involved something of my major so that I could practice the techniques and ideas that I have studied in school out in the field. I am a biology major and biology can be very broad and with having some hands on experience I believe would help me find more of a direction of a possible career that I would like to pursue. When I found out about this internship it seemed to match exactly what I was looking for so I applied. When I was informed that I was accepted as the Charlie Blumenstein Intern I was very excited. The experience that the internship required I felt that I fit the profile. I was very excited to learn how a non-profit organization such as The Nature Conservancy makes decisions environmentally and as a popular recreational area since the preserve is known for its fly fishing.

I am from Montana and even though it borders Idaho I have never been to Idaho. I had no idea what to expect of the internship. When I first arrived to Silver Creek I was in awe of the beauty of the landscape and the creek of the preserve. I then knew that it was going to be a great summer. I also knew why they called it Silver Creek because with the water at such a slow flow and the reflection of the sun off the creek the creek appears to be silver. I did not know that the preserve was known so much for its fly fishing and people from around there told me that this creek is the “graduate school of fly fishing.” My father and uncles are guilds for fly fishing on the Big Horn River in Montana so I had some experience in fly fishing. When I actually did get to fish on the creek I soon realized why they called it the graduate school of fly fishing because it was very hard to even get a bit from a fish. You had to know what fly to use when certain hatches were coming off and with the creek at such a slow flow rate you had to have the perfect cast so that you did not scare any of the fish away. It was good to fish the creek so that I would have some knowledge and could give advice when people asked what flies to use and where the better fishing holes are within the preserve.

This internship did call for a lot of hard work and tested me socially and mentally. To be successful I was required to follow direction from my supervisor while still integrating my own ideas. I accumulated a lot of experience and knowledge with each habitat restoration project and ecological management project that was conducted on the preserve. Work on the preserve included a wide variety of activities. Overall, I think that I received a good understanding on how a non-profit organization such as the Nature Conservancy works and how they make decisions of environmental preservation.

My various responsibilities included:

- Reed Canary-grass test plot monitoring and implementation
- Silver Creek water monitoring program and other biological monitoring
- Supervise Silver Creek Preserve Visitor Center

- Independent project: Update and create a pamphlet of invasive weeds within the preserve
- Miscellaneous: Maintenance, Office work, Visit other preserves and Informing the Public

Reed Canary-grass test plot monitoring and implementation.

One of my first duties was assisting in a Reed Canary-grass test plot monitoring and implementation. Reed Canary-grass is a large grass that grows rapidly and vigorously along stream banks and in wet, open areas. The Nature Conservancy performed several tests of various methods of removal and control of this grass. Before I had arrived previous interns marked where all the vegetation would be removed which was done by mowing and spraying. The revegetation treatments were to be implemented with my arrival.

We introduced three different types of plant species at six different plots along the creek. At each plot there consisted of a high density, low density and a mat which contained all three plant species. The idea of the revegetation treatments is that it would naturally repel future invasion of the Reed Canary-grass. After we had planted all the plants we then would water the plants usually every other day so that the plants may get a good start. We watered for several weeks and part of my job was to monitor the plots every couple of weeks. What I did was check the condition of the plants for each high density, low density and the mat. A water gauge was constructed at each plot and part of the monitoring was to check the water levels at each plot. The results of this experiment will help and provide information for the Conservancy to create a stream that naturally repels the Reed Canary-grass.

Silver Creek water monitoring program and other biological monitoring.

Silver Creek has a regular schedule for ongoing monitoring throughout the property. Twice a month the quality of the creek is measured. The water monitoring program is used to better understand the hydrology of Silver Creek. The primary goals are to better understand the ground water system and how water ends up in Silver Creek and to start regular systematic monitoring of the both discharge and water quality of Silver Creek. What is measured is the flow rate, stream depth, staff gauge reading, pH, temperature, conductivity, turbidity, dissolved oxygen, biological oxygen demand, nitrate levels, total phosphorous and suspended solids.

Biological monitoring is also performed on the preserves such as bird counts. Bird counts are done monthly with the help of local ornithologists. This was very exciting for me to watch how these people identify birds. Just by listening more there is a whole new world out there. We also monitored a count of willows trees that were planted along the edge of the creek about five years ago. What we did was to check and see how many survived and the condition of the willows. The reason for planting these willows along the banks was to provide a better habitat for the fish by providing shade along the creek.

Supervise Silver Creek Preserve Visitor Center.

The interns would occasionally be needed to run the visitor center. The Visitor Center contains interpretive displays and some merchandise and would provide a public education on Silver Creek. This was a time to greet and communicate with the public. Though a majority of people that were going through the Visitor Center were going to fish you would also meet birders, hikers, photographers or folks on a canoe trip. Some days we would have an activity-filled Day at Silver Creek to engage the public. Activities would include going on a nature walk or go bird watching and there would also be a fly tying class. It was fun visiting people from all over the place and to listen on how much they enjoyed Silver Creek.

Independent project: Update and create a pamphlet of invasive weeds within the preserve.

The Nature Conservancy is very aware of invasive weeds and their threats to the habitat therefore the Nature Conservancy is taking steps to ensure that the problem of invasive weeds does not grow. Previous interns have taken steps to map exactly what species are present on the preserve and where they are growing. My job then was to create a pamphlet that contained a picture and a general description of the invasive weed and threats of the weed. The idea was that each person that would go through the Visitor Center would read the pamphlet would help identify if any of these weeds are on the preserve and report immediately so that the problem may be taken care of soon as possible. The most common weeds that I included in the pamphlet included Canada Thistle (*Cirsium arvense*), Leafy Spurge (*Euphorbia esula*), Spotted Knapweed (*Centaurea maculosa*), Diffuse Knapweed (*Centaurea diffusa*), Dalmatian Toadflax (*Linaria genstifolia*), White top or Hoary Cress (*Cardaria draba*), Rush Skeleton Weed (*Chondrilla juncea*) and Purple Loosestrife (*Lythrum salicaria*).

For particularly sensitive areas along the preserve it was necessary on several afternoons that we would spray weeds mainly Canada Thistle. Canada Thistle was very dense in certain areas of the preserve. We would also spray farmer's land which is leased to them from the Conservancy.

Miscellaneous: Maintenance, Office work, Visit other preserves and informing the Public.

It may seem that the habitat restoration projects and ecological management projects may fill the day but we also had many other tasks that would keep the day busy. Such tasks would include cleaning and refilling snail-stations so that the fishers would not spread invasive snails. We also would clear trails throughout the preserve and repair fences. We also fixed any broken signs, cleaned the barn and mow yards and file papers in the office. Some times it was necessary to make a trip into town to pick up certain items or hang up flyers for activities that would take place at Silver Creek. We would also visit and help with other branches of the Nature Conservancy within Idaho.

Conclusion

Before I had even applied for the internship I was searching for an internship that would allow me to practice what I have learned in school and apply out in the field. This internship fulfilled what I was searching for. While I did put the skills that I knew to use I also gained a wide variety of new skills that I will carry with me for the rest of my life. My time at Silver Creek has been a great experience and helped shape my views on the Nature Conservancy.

Overall, I am extremely grateful to be given such a wonderful opportunity as this. This internship has given me a unique education and experience. I would like to thank the family of Charlie Blumenstein for providing me this opportunity it truly has been a once in a lifetime opportunity. Thank you!