



ANDY OSLER - DeVlieg Taylor Undergraduate Research Scholar 2011
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Dear DeVlieg Foundation,

First and foremost I would like to thank you for giving me the opportunity to experience such a wonderful place. This summer was by far the most enjoyable experience of my life. As a fishery major this has provided me the best opportunity to experience fish in such an undisturbed environment. **My project was to look at fish size/age structures within small tributaries to main stem Big Creek. Along with this I was able to look at species structure and how they differed among the creeks that I sampled.**

Through snorkeling and Electroshocking I was able estimate size classes of fish in each section of creek that I sampled. My snorkeling was done in approximately 100 meter sections of stream in which I moved upstream and documented every fish that I saw by species and length. I sampled three main streams around TWRS: Pioneer Cr., Cliff Cr, and Cabin Cr. In each stream I tried to snorkel at least three sections to get a representative sample from the entire creek. I was also able to conduct some electroshocking in Pioneer and Cliff Creeks. The fish that we caught electroshocking were identified by species and a length and weight were taken from each individual. Each fish that we got electroshocking I also was able to collect a scale sample which are in the process of being aged to determine the age class of fish that are found in each stream.



I was also able to conduct further research back at TWRS with the help of **Dr. Brian Kennedy** and his fish ecology during September of this year which will help give me a larger sample size. With the data that I have collected I'd like to be able to construct an age structure of fishes within each creek and compare the creeks that I sampled to see if there is a difference among the age of fish that reside there.

I am currently in the process of analyzing the scale samples and determining the age of each fish that I collected a scale sample from. Once this is done I will be able to determine the size structure for each age class which I can then go back and put the fish that I saw snorkeling into one of the age categories based on its length. This will help me determine not only the size of fish in each creek but also how fast they are growing by average length for each age class. I was also able to look at any differences in species abundance in those same creeks by the numbers of each species that were found during my snorkel sampling.

As noted the scale samples are still being analyzed but I have done some simple analysis of the species distribution as well as size comparison. It was found that the species composition in Pioneer and Cliff Creek were extreme opposites of each other. In Cliff Creek it was found there the dominant species was Rainbow trout (70%) with a few Cutthroat trout(30%), while in Pioneer Creek Cutthroat trout were the dominant species (80%) and only a few Rainbow trout(20%). There may be several factors that could influence this difference but more research would have to be conducted. The Cabin creek data included more species than both Pioneer and Cliff Creeks with Bull Trout and Whitefish being present.



Finally, I like to once again thank all of you for things you do to better help the research community. There is no opportunity like the one I was able to experience anywhere else in the country and it was all thanks to your generous funding. The foundation has provided so many opportunities for so many people and I am honored to be able to take part in such a unique experience. Since I am graduating in December I feel like I have experience under my belt that not many people have been able to experience. With this experience I'd like to possibly venture into graduate school and conduct more research and continue pursuing my passion for fish. ***This has been one of the greatest experiences of my life and it was not possible without the help of the DeVlieg Foundation. I am truly blessed to be able to have this experience and feel it will help me throughout my life and my career.***

Thank You,

Andy Osler