

Landon James Charlo

Salish / Blackfeet

Master's program, Natural Resource Science

Washington State University

### **Why I chose this program?**

I have always enjoyed being in the forest and I want to do my part in making sure that forests and wildlife are treated with respect and able to maintain their integrity as a system and as individuals. When beginning college I thought Natural Resource Science was the best fit for me because I wanted to learn about ecological concepts, and management that promotes healthy forests. In Native American culture, we are taught to respect nature in the form it was created, so I felt this was my way of doing what was important for our cultural beliefs and the ecosystem. As an undergraduate at Washington State University, I acclimated to life in Pullman and was able to make connections with faculty that allowed for an easy transition into the graduate program. Although Pullman is not known for its vast recreational opportunities, I appreciate the quiet community and being able to focus on work because there are few distractions, and there is a short commute to campus. After weighing my options of where else to attend graduate school, I felt that I would have the greatest chance of success at WSU, and I think it was a good choice.

### **What is my research focus?**

My graduate research area is located in Northwest Washington State and is focused on the influence of restoring standing dead woody debris (snags) in young coastal temperate forests, and how snags, in turn, create habitat for the Pileated Woodpecker as well as other woodpeckers. The Pileated is the largest woodpecker in North America and relies on large diameter snags for cavity creation in which to protect their young, and as a medium for insect infestation in which to prey upon primarily the carpenter ant. Due to its ability to carve out large cavities, the Pileated woodpecker is recognized as a keystone species. A keystone species is one that plays a large, unique and important role in maintaining ecosystem function and promotes species diversity, which makes it an important species to manage habitat for. My research is for Snohomish County and is focused on modeling the environmental factors that are influencing the use / non-use of created snags. Snohomish County is creating the snags by inducing tree mortality in a variety of treatment methods that include girdling, live topping and delimiting. They selected groups of live trees in the forested areas they own and manage that over a few years would create an empty gap in the canopy, which is currently very thick and uniform and not very structurally diverse. This study site was timber harvested 45 years ago so most of the trees are relatively small in diameter and unable to support Pileated [created] cavities at this time. The dead treatment trees are meant to supply foraging opportunities for the woodpeckers that occupy nearby sections of old-growth and late succession.

**My future Plans:**

In the near future I would like continue into a PhD program somewhere in the Pacific Northwest, possibly even here at WSU. Throughout the master's program, I enjoyed the yearly cycle of being in a remote field location exclusively during the summer months and then being scholarly indoors during the semester - it is a great way to spend the year. In the last two years as a graduate student, there have been many challenges, successes and failures; but, one thing is for sure, it has been rewarding and I would like to up the momentum. As a career, I would like to be a field ecologist for several years and then transition into teaching at a small college. Part of my funding comes from being a teaching assistant and I think that I would like to continue teaching as a career, most likely at a tribal college. I think that good teaching, and especially mentorship, is becoming less emphasized because of the fast paced and individualistic society that is developing. As a professor, I think that it will be rewarding to spend time with students and help them advance to the next level.