



Al Martin HCTF Conservation Scholarship Recipient 2026



Robyn Denn

Robyn is a master's student at Simon Fraser University. While she was completing her bachelor's degree at the University of Waterloo, she took a chance on an internship at a bird observatory and instantly fell in love with conservation research the moment she held a magnolia warbler in the palm of her hand. Since then, she has continued to challenge herself to grow as an ecologist and is motivated by her desire to contribute to the bigger picture of conservation in a meaningful way. When she is not bird watching (for science) you can find her bird watching (for fun), enjoying the outdoors, volunteering for the campus radio station, and creating art.

Robyn's graduate research seeks to better understand the implications of spatiotemporal patterns in habitat use and activity by Clark's nutcrackers on whitebark pine recovery and management post-fire. Historic fire suppression and climate change have dramatically altered fire regimes in the high elevation ecosystems of Western North America. As altered disturbance regimes continue to amplify stressors in these regions, sensitive species like the whitebark pine may be especially vulnerable. The whitebark pine is facing widespread population decline due to invasive fungus and forest pest outbreaks and is listed as endangered in Canada. The recruitment and regeneration of whitebark pine is solely reliant upon the obligate mutualism with its avian seed disperser, the Clark's nutcracker. As a result, there is an increasing interest the future stability of nutcracker-pine mutualisms and the ability of whitebark pine to regenerate post-fire.

Robyn is examining the spatiotemporal variation in nutcracker abundance and determining how habitat disturbance and whitebark stand characteristics influence habitat use by nutcrackers and how this may influence whitebark pine regeneration post-fire. To do so, she deployed an array of acoustic recording units and conducted vegetation surveys, avian point counts and focal behavioural surveys across a mosaic of burn disturbance where whitebark pine stands vary in density in the Pasayten Valley, British Columbia, Canada between July and September 2025 when nutcrackers were most active harvesting and caching whitebark pine seeds.

This research is critical for informing science oriented whitebark pine management and recovery strategies. By determining the level of use of burned habitat by nutcrackers, land managers can use this information to identify areas that are actively sustained by nutcracker seed dispersal, and areas where targeted management practices, like seedling planting, should be prioritized.



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