## Al Martin HCTF Conservation Scholarship

## Recipient 2025

## Alicia Woods

Alicia Woods is a PhD student at the University of Northern British Columbia. Alicia has called Fort St. John home for 39 years, having been raised in the community and spending her professional career as a wildlife biologist for 20 years in the north. Alicia completed both her BSc and MSc at UNBC and is returning to UNBC to complete a PhD as a mature student.

For 10 years, Alicia has been conducting and measuring the response of vegetation of prescribed burns conducted to restore and enhance habitat for species ranging from sharp-tailed grouse in the grasslands of the Peace River valley to ungulates occupying sub-alpine habitats in the Muskwa-Kechika Management Area (MKMA). During this time, Alicia's interest in prescribed fire has grown to include the effects of prescribed fire on wildlife nutrition and health.

Stone's sheep distribution encompasses the MKMA, and prescribed fire has been used for decades to manage Stone's sheep habitat in the MKMA. Past research has shown that Stone's sheep select for burned habitat over non-burned habitat. The effects of habitat treated with prescribed fire on Stone's sheep health and populations, however, is unknown. The purpose of Alicia's research project is to investigate the effects of prescribed fire on indicators of Stone's sheep nutrition (e.g., stress hormones, diet), lamb recruitment, and changes in vegetation and wildlife use of prescribed burns before and after treatment. Using non-invasive techniques, Alicia will collect fecal samples deposited by Stone's sheep to measure hormones and diet, vegetation samples will be from burned and unburned sites, and remote camera stations will be established to measure wildlife use pre- and post-burn and on unburned sites. Annual lamb recruitment surveys will also be conducted to determine if there is a population-level response of Stone's sheep to the amount of area treated with prescribed fire.

Results of the project will contribute to past and current research being conducted on Stone's sheep and inform future management planning including Stone's sheep management plans, fire management plans, and land-use plans such as the MKMA Wildlife Management Plan and Provincial Parks and Protected Areas management plans.

