

THE NORTHERN RICHARDSON MOUNTAINS DALL'S SHEEP ECOLOGY STUDY

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Abstract: Dall's sheep are hunted for subsistence purposes by Gwich'in people within the northern Richardson Mountains, and are a valued species for sport hunting in North America. With Dall's sheep population fluctuations in the northern Richardson Mountains, a possible increase in harvest and human activities, and limited information regarding Dall's sheep-habitat relationships, diet and parasites in this region, this two year project will determine 1) seasonal range, movement rates, corridors, 2) seasonal patterns of habitat use, 3) diet and nutritional content of diet species, and 4) parasitic load. This project will focus on two study blocks, chosen for comparative purposes, within the northern Richardson Mountains of the Northwest and Yukon Territories. There will be GPS collars applied to 15 Dall's sheep (9 rams, 6 ewes). These collars will provide locations through ARGOS satellite transmission. Seasonal ranges, movement rates and corridors will be determined using collar locations and GIS. Seasonally, study sites will be selected to characterize the habitat by randomly selecting known sheep locations and non-sheep locations. Diet, nutrition of diet species, and parasitic load will be determined through forage and faecal analysis. This project is designed to obtain information that is required to understand population-habitat relationships and population fluctuations and to assist co-management boards with determining potential opportunities for future outfitting and development in the northern Richardson Mountains.

Key words: Dall's sheep, *Ovis dalli dalli*, hunting, seasonal habitat use, parasite loads