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**The Effects of Habitat and Body Condition on Fishers (*Pekania pennanti*) in the Columbian Population in British Columbia**

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**Abstract**

There are two populations of fishers (*Pekania pennanti*) in British Columbia: the Boreal and Columbian. Recent studies have shown the Columbian population has net reproductive rates that are less than half of those observed in the Boreal population, and is also threatened by numerous population and habitat threats. Within the southern portion of their range in the province, close to half of the population occupies the Interior Douglas-fir (IDF) biogeoclimatic ecosystem classification (BEC) zone, however previous research has focused on different BEC zones with vastly different landscapes. Increasing reproductive output within the Columbian population has been identified as a means of shifting them to a more stable population, thus the goal of our research is to identify if habitat within home ranges could be a factor affecting population declines, as well as body condition of reproductive females within the IDF zone in the Cariboo region of British Columbia. To do this, we will be tagging and tracking females to better understand their home ranges, and then perform a multi-scale habitat analysis within these areas beginning with the elements (i.e. denning trees, resting sites, etc) they are tracked to. To assess reproductive output reproductive females will be tracked to their dens to note parturition date of kits, followed by continuous monitoring of the dens to assess kit number and survival until weaning. This research will be important in identifying fisher habitat needs, and to better understand reproductive rates of female fishers within the IDF zone, in the hopes of recovering the imperiled Columbian population.