

Using Gps Telemetry To Study The Seasonal Habitats Of Mountain Goats Within The Sunshine Coast Forest District, British Columbia.

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Abstract: Mountain goats have been identified by MWLAP (Ministry of Water, Land and Air Protection) as a species of management concern in the Lower Mainland Region of British Columbia. To improve understanding of coastal goat habitat use and its relation to forestry operations, International Forest Products Limited, with support from FRBC, has started a two-year GPS telemetry project. The objective of the project is to further knowledge of seasonal habitat use by coastal goats. Goals in meeting this objective include determining collared goats' seasonal home ranges, movement patterns and use of broad habitat units, particularly forested habitats. Ground truthing of collars and correction algorithms derived from GIS mapping will allow us to account for GPS fix likelihood bias due to topography and forest canopy. The use of this correction within an RSF model (Resource selection function) will allow us to estimate the probability of use of habitats by goats within our study area. Two types of non-differential GPS collars are being used and have been initialized to collect data from different schedules. ATS collars will remain on animals for a two-year period and will allow us to examine goats' fidelity to seasonal ranges, and to monitor the timing of their seasonal movements. Lotek 2200R GPS collars have been programmed to increase our daily rate of GPS fix attempts and to increase our sample size of independently collared mountain goats. These collars will remain on animals for a one-year period and will then be placed on independent animals. The first group of animals is currently collared, and a total sample of 26 animals will be collared over our two-year study period.