B.C. Mountain Goat Workshop, Prince George, BC 2005

Project Title: Mountain goat winter habitat use in the West Kootenay region of British Columbia

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4. **Project location**: Slocan Valley, West Kootenay
   Coastal: ☐ Transition: ☐ Interior: ☒
5. **Project timeframe**: Start (month/year): Sep 1996 End (month/year, or ongoing): Apr 1997
6. **Project status**: Data collection ☐ Analysis ☐ Write-up ☐ Publication ☒
7. **Project objectives**: (briefly describe the primary objectives of your project)

   The objectives of this study were to delineate mountain goat winter range in Slocan Forest Products' (SFP) Tree Farm License 3 (TFL 3) using local knowledge and aerial surveys.

8. **Project descriptors** (select all that apply):

Research ☒	Habitat Use: ☒	Forestry Interactions: ☒
Management ☒	VHF collars: ☐	Oil & Gas Interactions: ☐
Inventory ☒	GPS collars: ☐	Mineral Exploration: ☐
Predation: ☐	Harvest: ☐	Aerial Disturbance: ☐
Habitat Modeling: ☐	Population Dynamics: ☐	Human Disturbance: ☐

Other:

8. Project description (provide a brief description of your project including methods and main findings or results to date):

Little is known about the winter habitat use of mountain goats in the West Kootenays of southeastern British Columbia. Relevant literature and interviews with local people familiar with mountain goat distribution suggested increased use of forested habitats during winter in interior wet belt climates, placing goats and forestry development into a situation of potential conflict. Aerial surveys were conducted between late September 1996 and mid-April 1997 in portions of Tree Farm License (TFL) 3 in the central Selkirk Mountains. Eight surveys were flown, and a total of 74 goats were observed (16% kids). Habitat characteristics were examined on goat locations (n = 39) and tracks (n = 50) overlaid on Forest Cover and TRIM data using a GIS. Goat distribution shifted seasonally from use of more open, alpine habitats at higher elevations during the fall to use of more forested south-facing slopes at lower elevation during winter. Winter movements appeared to be restricted to relatively small areas adjacent to steeper habitat. Movements of up to 7 km were observed in April into basins avoided during winter. Most locations were in the Alpine Tundra (AT) and Engelmann Spruce - Subalpine Fir (ESSF) biogeoclimatic zones, however some winter locations were in the Interior Cedar - Hemlock (ICH) zone. Older aged subalpine fir (Abies lasiocarpa), Douglas-fir (Pseudotsuga

menziesii), and Engelmann spruce (Picea engelmannii) were the dominant trees species associated with goat locations or tracks. Goat and track locations were closely associated with escape terrain (defined as >100% slope on open terrain); 86% of locations were <400 m from escape terrain. It is unknown whether suitable winter goat range is limiting in the Selkirk Mountains. Logging practices should maintain a diversity of habitats, including mature and old forest timber, centred on identified cliff systems. This study provided an indication of mountain goat winter habitat use in TFL 3, however radio collaring is required if a relatively unbiased, systematic assessment of goat habitat use is desired. Radio collars would enable location of goats in all habitats, including closed canopy forests. Newly developed GPS collars could cost-effectively provide the unbiased data required by forest managers to enable integration of goat habitat concerns and forest development.

9. Project documentation (provide a list of citations for all progress, final, or published reports)

Poole, K.G., and G. Mowat. 1997. Mountain goat winter habitat use in the West Kootenay Region of British Columbia. Unpublished report for B.C. Ministry of Environment, Lands and Parks, Nelson.