

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

Project Title: Mountain goats in the East Kootenay: evaluation of habitat use, wintering strategies, and potential impacts of high-elevation logging

1. Project Leader(s): Kim Poole

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4. Project location: East Kootenay, St. Mary and White rivers

Coastal:

Transition:

Interior:

5. Project timeframe: Start (month/year): Jan 2004 End (month/year, or ongoing): Sep 2005

6. Project status: Data collection Analysis Write-up Publication

7. Project objectives: (briefly describe the primary objectives of your project)

1. Determine mountain goat habitat use and selection with a focus on the winter period in 2 areas of the East Kootenay characterized by different snow conditions and goat wintering strategies.
2. Determine the potential effects of forestry development on low-elevation winter habitat use by mountain goats, and use of low-elevation mineral licks and historic trails to these licks, using retrospective analysis and an experimental design.
3. Develop a model of winter habitat capability for goats within the study areas, and compare the performance of this model to the Sinclair et al. (2001) model.
4. Use radiocollared goats to quantify animal sightability at different survey intensities.

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):

We placed GPS collars on 15 goats of both sexes in each study area (St. Mary River (Purcell Mountains; deeper snow, possibly higher forest use by goats) and White River (Rocky Mountains; shallower and drier snow; high forestry impact)) in early January 2004. Collars were programmed to take just under 4 fixes per day, with an expected battery life of 19–20 months. Four goat died between Feb-Jul 2004; these collars were re-deployed in Nov 2004. Collars have been monitored every 1-2 months, and appear to be functioning well (~88% fix success). Seasonal movements of up to 20 km have been recorded in both areas.

Aerial surveys were attempted in September 2004 to test for sightability of radio-collared goats at different survey intensities. The White River was surveyed at low intensity on 6 September. Survey effort averaged 1.1 minutes/km² in 8 blocks totalling 98 km². A total of 126 goats was seen, including 22 kids (21 kids:100 adults). Five of 10 collared goats were observed (50% sightability). The St. Mary study area was surveyed at high intensity on 8 September. Survey effort averaged 1.7 minutes/km² in 9 blocks covering 121 km². Seventy goats were seen including only 5 kids (8 kids:100 adults). Ten of 12 collared goats (83%) were observed. We had intended to re-survey each area at the opposite intensity using a different pair of observers. Unfortunately, due to inclement weather for 2 weeks, the sightability surveys were not completed. We will attempt to redo this sightability work in Aug 2005, prior to collar removal.

Data analysis and habitat model development will occur after collars are retrieved and location data downloaded in fall 2005. .

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

Poole, K. 2003. Mountain goats in the East Kootenay: evaluation of habitat use, wintering strategies, and potential impacts of high-elevation logging; study design and detailed work plan. Unpublished report, Aurora Wildlife Research, Nelson, British Columbia.

Poole, K., K. Stuart-Smith, and I. Teske. 2004. Mountain goats in the East Kootenay: evaluation of habitat use, wintering strategies, and potential impacts of high-elevation logging. Interim progress report. Unpublished report for Tembec Industries, Inc., Cranbrook, B.C., and B.C. Ministry of Water, Land and Air Protection, Cranbrook, B.C.