



Integrating Livestock Grazing and Timber Production within Forested Lands of Alberta

Jillian Kaufmann¹, Edward Bork¹ and Mike Alexander²; (1) University of Alberta, (2) Alberta Sustainable Resource Development; Contact Author Email: jilliank@ualberta.ca

The integration of livestock grazing and timber management on forested lands has become a significant resource management issue in areas where there is demand to satisfy both land uses. This poster summarizes an innovative research project created to examine the interactions between ongoing cattle grazing and timber production within recently harvested cut blocks on Alberta public lands. The project will focus on quantifying patterns of livestock grazing at the landscape, community, and patch level within each of 2 key locations: aspen forest near Drayton Valley and coniferous forest in the Porcupine Hills of SW Alberta. Study sites are comprised of heterogeneous rangelands containing a mixture of habitats including grasslands, clear-cut coniferous/deciduous forest, partially cut coniferous/deciduous forest, and uncut coniferous/deciduous forest, along with areas of heavy compaction and slash loading (haul roads). All habitat types, including themes of disturbance and harvest regime, will be mapped in detail using GIS technology. At each location, a combination of cattle spatial distribution data will be collected using GPS collars, together with animal behavioural (habitat visitation and forage use) data. Seasonal livestock use patterns will be further interpreted using information on forage agronomy (availability and quality) as well as microenvironment (temperature, slash loading, etc.). Additionally, information will be collected on the impact of livestock presence/activity (i.e. trampling, defoliation, etc.) on forest (planted conifer or aspen sucker) regeneration, and on how the residue from commercial logging may affect subsequent patterns of livestock utilization. The ultimate goal of the project is to provide scientific knowledge essential to supporting a balance between cattle grazing and timber harvesting on the same landbase. More specifically, the project is designed to provide information that will lead to beneficial management practices that minimize conflict between livestock grazing and sustainable forest management. In addition to furthering our understanding of the basic factors influencing cattle grazing behaviour, results of this research will aid the development of prescriptions useful in minimizing the impact of grazing activity on regeneration while maintaining site productivity for long-term timber supply.

2009. 62nd Society for Range Management Annual Meeting. Paper No. 2030-12.