

Use of Anthropogenic Linear Features by Alternative Predators in Woodland Caribou Range

GL 09-9198-50

David Latham

The majority of oil and gas disturbances in northern Alberta consist of linear disturbances (e.g. seismic lines) that, while occupying a proportionally small area of the land base, may have ecological impacts that are disproportionately large relative to their area. Seismic exploration lines and other linear features are believed to have increased predator hunting efficiency (Jalkotzy et al. 1997; James et al. 2004) by enhancing their line-of-sight, increasing predator olfactory encounters with fresh caribou/prey trails, increasing predator travel speeds through peatlands or altering the orientation of predator movements to include a greater proportion of caribou habitat in their hunting forays. Recent work in the WSAR and ESAR caribou ranges by Latham et. al. (In press) suggests that anthropogenic linear features, particularly seismic lines, are important conduits for wolves while hunting and travelling, especially during the snow-free months. Interestingly, this coincides

with the time of the year when wolf-caused caribou mortality is highest (McLoughlin et al. 2003). However, it is unclear whether alternative predators such as black bears and coyotes use anthropogenic linear features to access and move around caribou range, particularly during the calving season when the effect of these predators is hypothesized to be most important.

Policy Issue

Ecosystem (and component) responses to oil and gas activity

Knowledge Gap

Predator use of anthropogenic features associated with oil and gas developments

Report