NORTH CANOL MOOSE INTENSIVE STRATIFICATION SURVEY, FEBRUARY 2009

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North Canol moose intensive stratification survey, February 2009.

Survey report – March 2009

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Summary

Environment Yukon Staff and community observers conducted a late winter fixed-wing aerial survey for moose along the North Canol Road corridor between the community of Ross River and the Northwest Territories border at Macmillan Pass from February 24 to 27 2009. We surveyed a total area of 5006.5 square kilometers in 55.63 hours. We counted 466 moose in 222 groups including 59 calves (12.7% of the population). To document seasonal shifts in moose distribution we plan to survey this area again in early winter of 2010.

Introduction

Environment Yukon has no current information on moose distribution and abundance along the North Canol Road. This area is has a long history of mineral exploration and is the focus of several mine development proposals currently. The North Canol road will likely receive substantial upgrading in the next few years which may lead to a substantial increase in harvest of wildlife along this corridor. The current lack of baseline information limits our ability to provide effective input into Environmental Assessments and to propose regulation changes in this region.

Potential mining impacts in the North Canol region include Overland Resources- Andrew property, Selwyn Resources- Howards Pass/Donn Valley haul road, and North American Tungsten Corporation- Mactung property and proposed haul road. These major developments are in addition to a multitude of smaller mineral exploration projects. To improve access to the sites and make ore extraction more feasible, the North Canol Road will likely receive major improvements in the next few years which will likely include bridge construction and year round access.

Improvements to the North Canol Road will facilitate greater ease of access to hunters from the Yukon and NWT. Local perception is that this region is already seeing increased harvest activity due to closures and population declines in other parts of the Yukon. News of trophy moose and caribou being taken in recent years, are seen as having contributed to increased harvest activity along this road. We have no recent data regarding subsistence harvest along the North Canol Road. Although reported Yukon resident harvest success along the North Canol corridor has remained relatively stable over the past decade, improvements to the road would very likely translate into increased harvest pressure and success.

A meeting was held with elders and members of the Ross River Dena Council and elders in early February 2008. Based on elder feedback, the council was supportive of the moose survey being conducted if a traditional knowledge component was incorporated and that the resulting information was not presented to the public in a way that promoted increased hunting in the region.

Survey area

The survey area encompassed the entire Yukon portion of the North Canol Road.

Total Survey Area		= **5006.5 km2**
Non-Habitat Area -	Large Water bodies (>=0.5 km2)	= 119.2 km2
	Areas **>= 5500ft**	= 300.5 km2
	Total Non-Habitat	= 419.7 km2
Habitable Area (Total Area – Nonhabitat Area)		= **4586.8 km2**
Survey Units: 1-315		315 units (Avg unit = 15.9 km2)

Survey methods

We surveyed this region using a Cessna 206 and a Maule over 4 days between February 24 and February 27, 2009. In each airplane sat two observers in the back seat and a navigator and data recorder in the front seat. We surveyed for 55.63 hours, covering 5006.5km^2 for an intensity of 0.48 minutes per km2. This is within the range of search intensities normally flown for stratification monitoring surveys.

Weather conditions were generally good. Snow cover was 100%, up to 6 days old and even old tracks were highly visible. Temperatures ranged between -10 and -25 degrees Celsius. Three of the four flying days were clear and one day was overcast requiring us to suspend the survey mid-afternoon.

Observations of other wildlife and significant features were also recorded.

Moose Population Abundance and Distribution Results

A total of 466 moose in 222 groups were recorded.

Table 1. Summary of numbers recorded

	Total area
Area surveyed (sq km)	5006.5
Minutes of survey	2405
Minute per sq km	0.48
Total moose seen	466
# calves (%)	59 (12 %)
Moose per minute	0.19

We counted 59 calves (4 twins and 51 single), which translates to 12 calves per hundred moose. Through past research we have found that approximately 10 to 15 calves per hundred moose are needed in late winter to maintain stable moose populations.

Other wildlife recorded

We observed a total of 9 caribou that were likely part of the Tay River Herd. We also counted 13 wolves, 2 wolverine, and 1 snowy owl

Staff

Navigators / recorders for this survey were Susan Westover, Troy Pretzlaw, Rene Rivard and Ryan Drummond (Yukon Environment). Two community observers hired from Ross River were Robin Dick and Glenn Ollie. Pilots for the survey were Gerd Mannsperger (Alpine Aviation) and Craig Yakiwchuk (Whitehorse Air).

Figure 1. North Canol Road Moose Survey Area

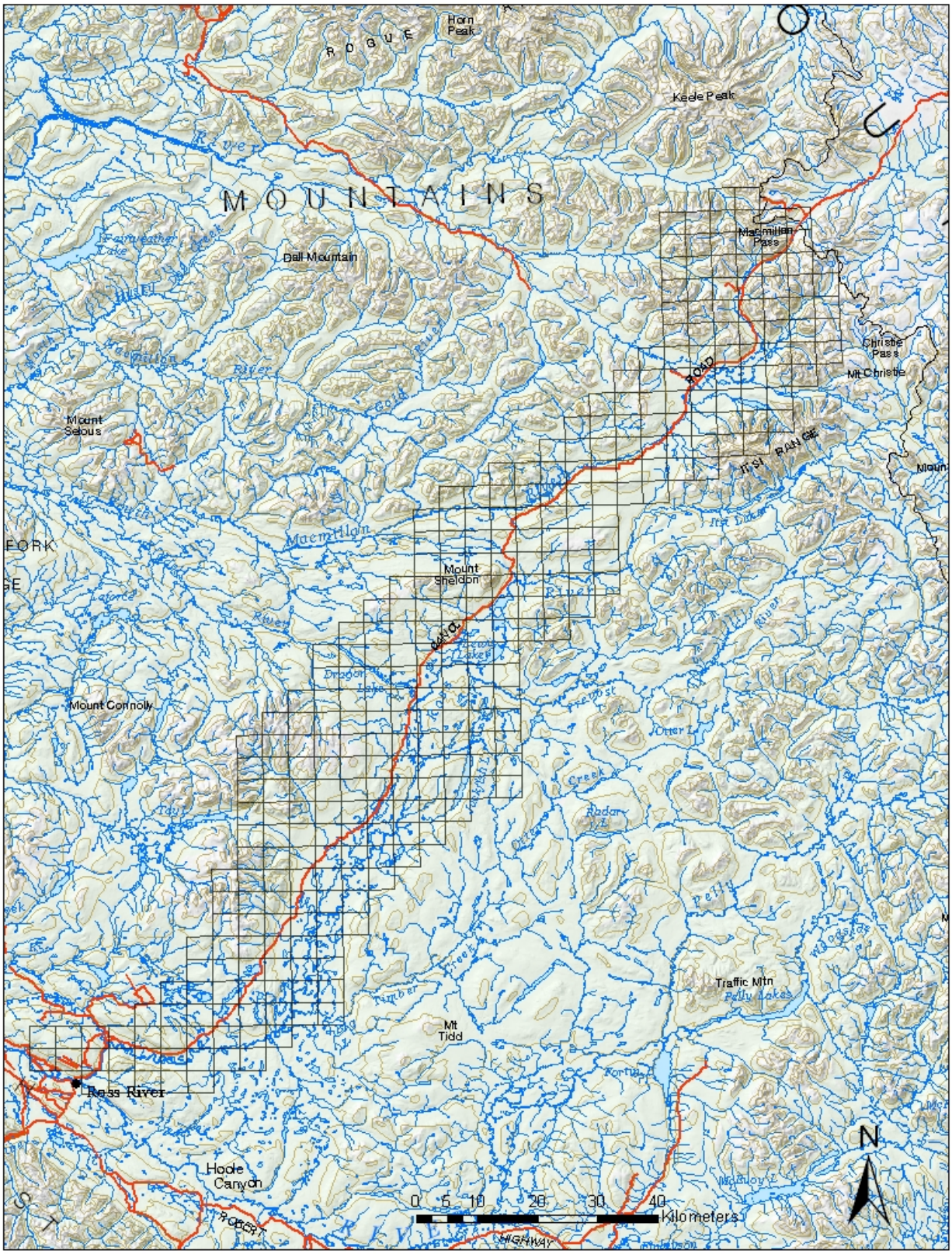

Figure 2. North Canol Moose Survey Transect Track

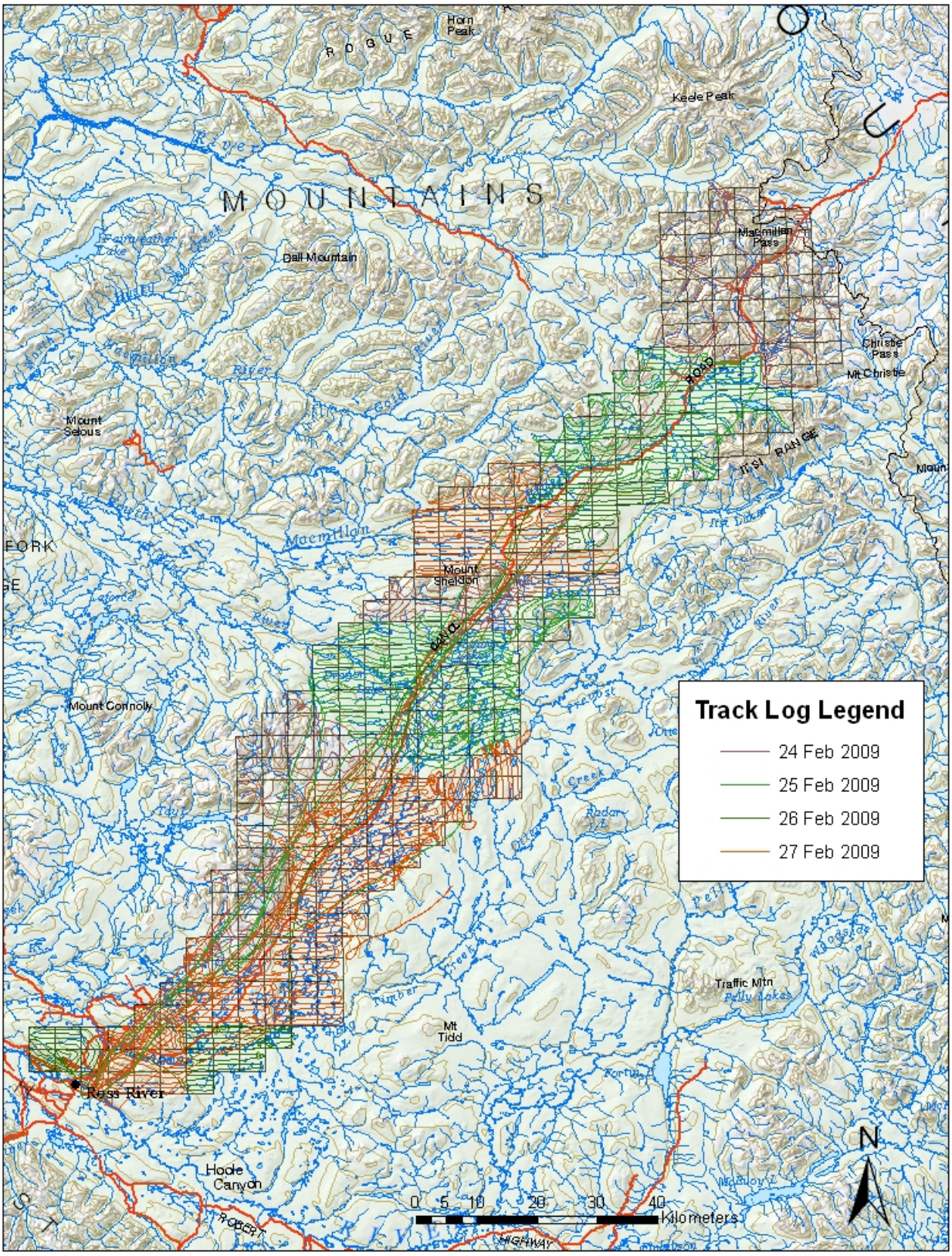

Figure 3. 2009 North Canol Late Winter Moose Survey Locations.