DAWSON LAND USE PLANNING MARCH 2009
MOOSE SURVEY

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Dawson Land Use Planning March 2009 moose survey

Summary report -- 17 Dec 09 – revised Apr10

Summary

A fixed wing aerial survey for moose was conducted southeast of Dawson City in the Klondike River area. The total area of approximately 10,600 square kilometres was surveyed in 5,796 minutes. A total of 553 moose in 373 groups were recorded. This included 72 calves (13% of the total moose counted). We saw numerous other species during the survey, most notably 31 groups of caribou totalling 296.

Introduction

In preparation for a land use planning process to start in the Dawson region, we undertook an aerial survey to document the relative distribution and abundance of moose south of Dawson in late winter. We tentatively identified 3 areas for large scale, low intensity moose surveys which cover the bulk of the preliminary land use planning region (Figure 1). The area covering Dawson East and Dawson West moose survey areas and beyond was done in March 2008. The survey in March 2009 covered mainly the Klondike River.

Survey area

Survey area boundaries were drawn based on river drainages as much as possible. This survey area covered the Klondike River drainage, the North Klondike Highway as far south as Gravel Lake (abutting the March 2008 survey area), and Tombstone Territorial Park. In several areas, when we did not see moose tracks going up into the high country, we did not fly up past the shrub line (Figure 2).

Survey methods

The survey was flown with 2 Cessna fixed wing aircraft. Personnel in each plane consisted of a pilot, 2 observers in the back seat, and a navigator/ data recorder in the front seat.

The survey was conducted over 10 days between March 7 and March 16, 2009. Total flight time was about 119.1 hours. The total survey time was 5,796 minutes, covering approximately 10,600 km^2 (including portions of the high country that was not flown) for a search intensity of 0.5 minutes per km^2. This is within the range of search intensities normally flown for stratification monitoring surveys.

Weather conditions were good with 100% snow cover. Temperatures were normal, between -10 and -35 degrees Celsius. Three of the 10 flying days were clear with the remaining days high overcast or local snow.

Observations of other wildlife and significant features including pine trees were also recorded.

Moose Population Abundance and Distribution Results

A total of 553 moose in 373 groups were recorded (Figure 3).

Table 1. Summary of numbers recorded

Area surveyed (sq km)	10,635.1
Minutes of survey	5,796
Minute per sq km	0.54
Total moose seen	553
# calves (%)	13
Moose per minute	0.10

Overall, there were 72 calves which calculate to 13% calves in the population. Normally 10 to 15% calves in late winter are needed to maintain stable moose populations. We saw 5 sets of twins, or about 7.5% of the maternal groups.

Most groups recorded were of a single moose (65%). There was 1 group of 11 adult moose seen and the remaining groups were 2 to 5 moose.

Other wildlife recorded

There were 296 caribou in 31 groups recorded (Figure 4). These caribou are probably from the Hart River or Clear Creek Caribou Herds.

We saw 2 groups of wolves, 3 wolverines, 1 fox, 4 lynx, 3 bands of sheep, 1 snowy owl. One kill site of unknown species was seen and documented. We also recorded the locations of stands of pine trees when we encountered them along their apparent northern boundary.

Acknowledgements

Navigators / recorders for this survey were Martin Kienzler, and Dorothy Cooley (Yukon Environment). We had many observers: David Algotsson, Hans Algotsson, Dorian Amos, Mel Besharah, Ashley Bower, Rhiley Brennan, James Christiansen, Guy Couture, Pete Descoteaux, Chad Dyce, Mitchell Farrell, Liz Foubister, Suzie Fournier, Dan Marvin, Alice McCulley, Kevin Mendelson, Richard Nagano, Maryelle Veilleux, and Will White.

We'd also like to especially acknowledge Kirby Meister (Conservation Officer), and Ryan Peterson (Tr'on dek Hwech'in) who participated in the survey as part of their job duties.

Thanks to pilots Gerd Mannsberger (Alpine Aviation) and Craig Yakiwchuk (Whitehorse Air Services). This survey was funded by a budget managed by Karen Clyde (Yukon Environment). Finally thanks to Rick Ward and Susan Westover (Yukon Environment) for guidance and advice.

Figure 1. Map of tentatively proposed Dawson LUP moose survey areas

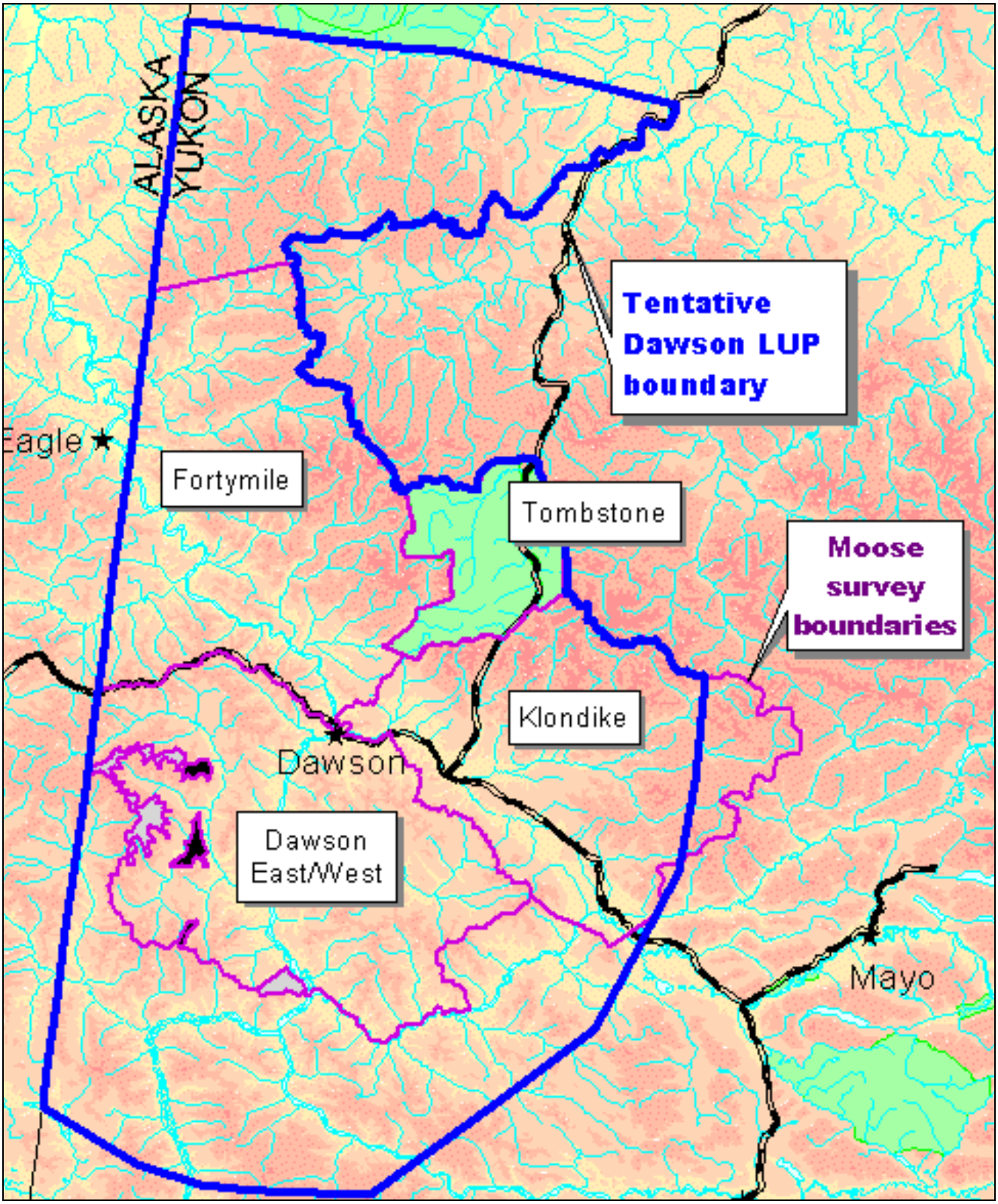

Figure 2. Map of flight lines, color coded by flight date.

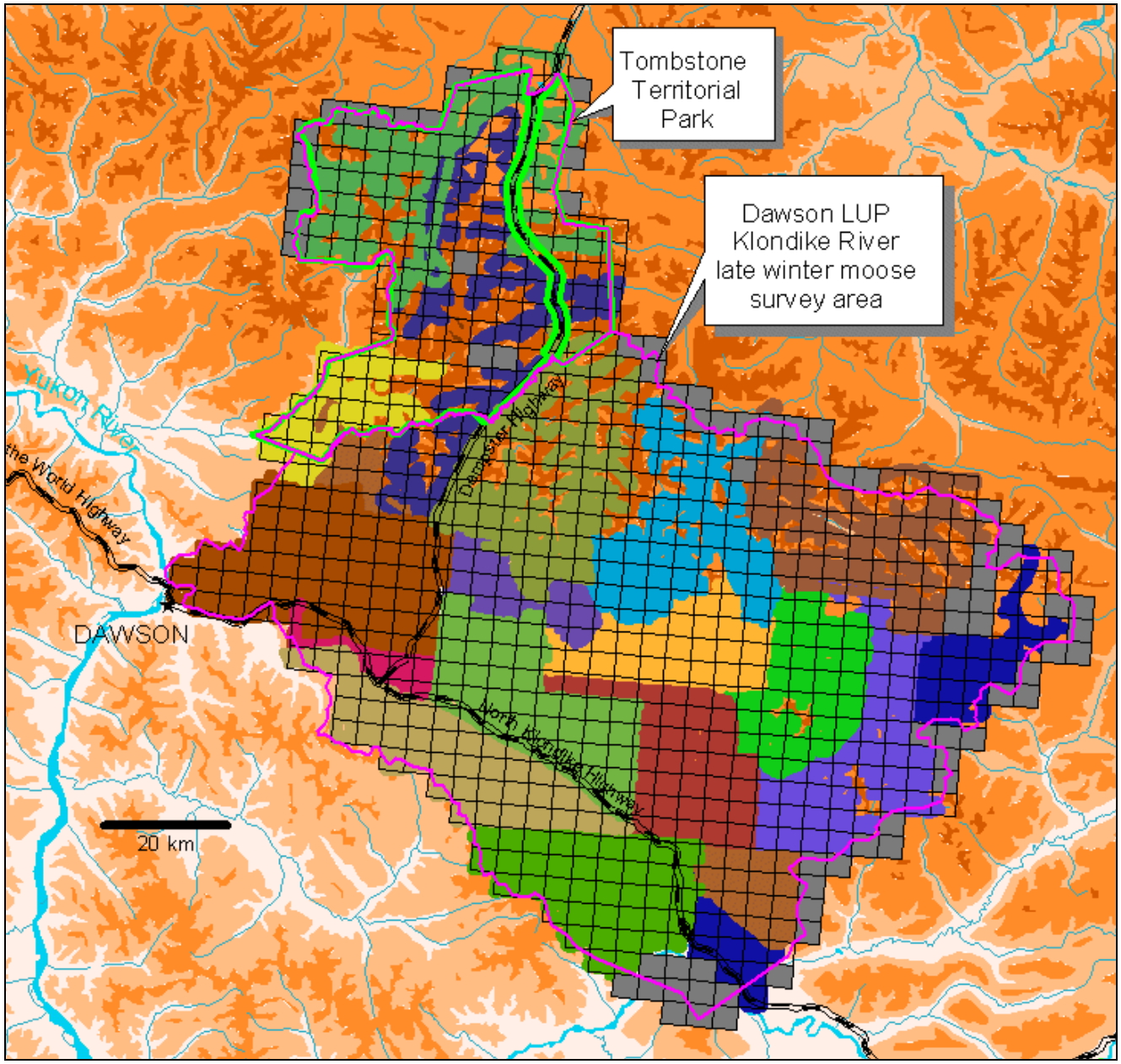

Figure 3. Locations of moose groups, coded by group size. Shaded boxes indicate high elevation survey units that were not flown.

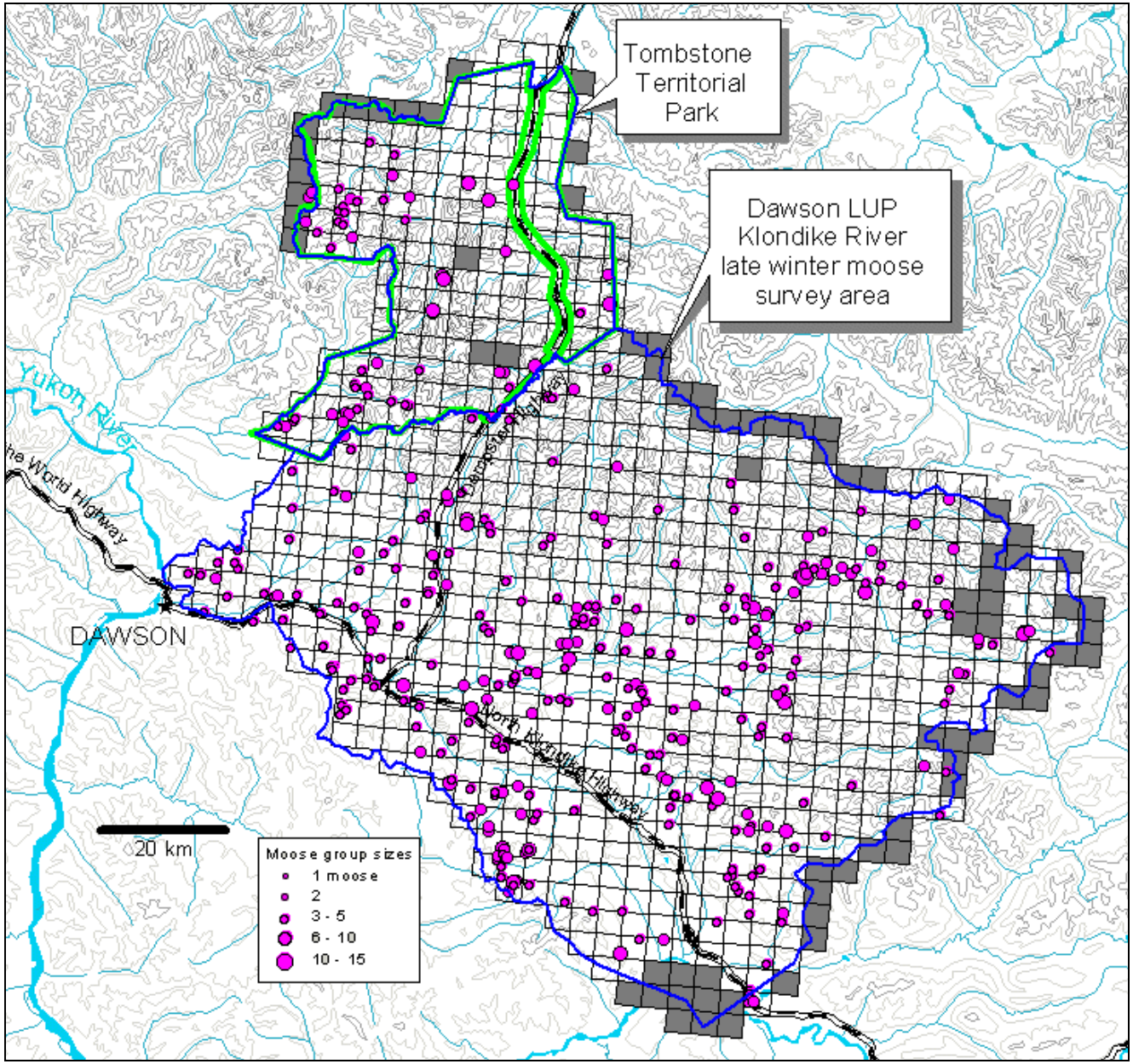

Figure 4. Locations of other species seen.