Rowsell, Nicole

From:	Schmelzer, Isabelle
Sent:	Thursday, February 27, 2014 10:21 AM
To:	Blake, John
Cc:	Doucet, Christine; Pardy, Shelley; Pisapio, John; McCarthy, Sara; Herdman, Emily; Barney, Wayne
Subject:	Concerned about ponteitally extremely low numbers of RWM caribou
Attachments:	DataOverview.jpg; DataOverview_nogrid.jpg

HI folks,

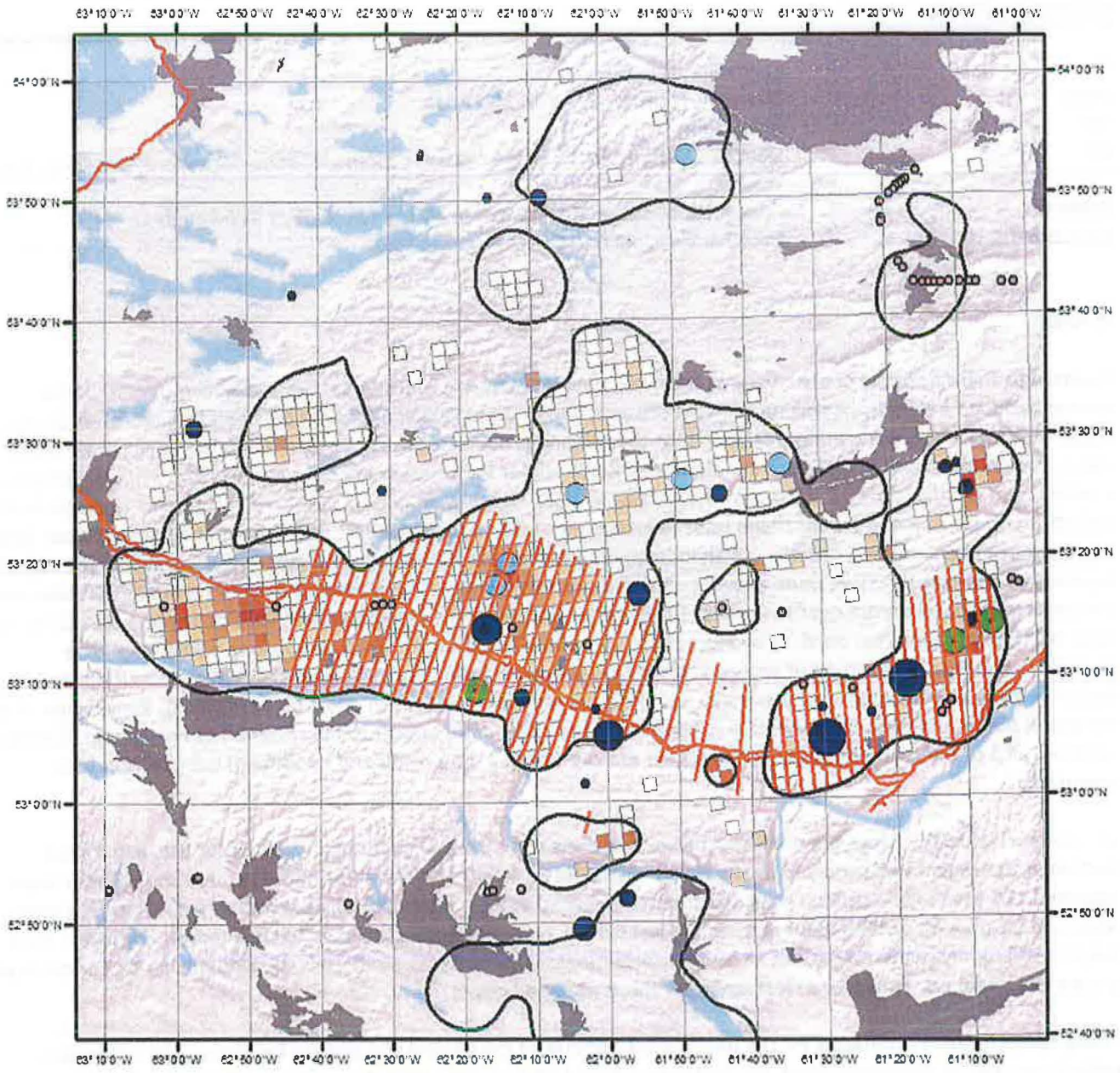
I wanted to share a couple of observations with you, now that the NALCOR surveys have been completed. These surveys included a significant portion of RWM winter ranges. These ranges appear to be been well depicted by our winter kernels for this population (meaning that they should produce some sightings of animals). To illustrate what I mean, I've attached two maps which summarize all RWM winter information since the early 1980s. They depict group locations and relative sizes for the last formal census in 2001, sightings or craters observed in the 2014 NALCOR flights, and observations of RWM groups made prior to incursions of GR caribou in 2009. You'll see that all observations (and these are from non-collared caribou. (so an independent test of the winter range boundaries) occur within the regions depicted by the kernel. I have done an additional analysis which depcis the number of different animals that have used any given area for winderitn over the years. Given the size of the RWM range, the likelihood of any one area (2 by 2 grid cells) being used more than once, or by more than one animal, is extremely small. If you look at the map 'data Overview', it shows the location of several regions that appear to have very high value to RWM caribou (depicted in darker orange, representing use by as many as 7 different animals over time in one 2 by 2 km block). Once again all of the group observations during surveys (e.g independent of collar data) appear to fall either on or near group sightings. In addition, all 5 of the currently collared individuals are captured by the kernels and by some of the grid cells used repeatedly.

So, why am I worried? Since our analyses/,maps have done a good job of capturing RWM winter use, and a good portion of this region was surveyed by the Nalcor flights (see grid lines on the maps) more caribou should have been observed. To have only 3 caribou seen with transects spaced at 2 km intervals is deeply concerning. Over that same region, more than 60 caribou were seen on the last survey, (with transects spaced at 10 km intervals I believe). Now skeptics will rightly point out tha not all of the winter ranges were sruveyd, so there is still a possibility that some larger groups will be found. However as it stands now this is not good news.

I have added in survey transects for the unsurveyed portions of the central and eastern kernels as part of the fecal collections I will be doing next week, so we'll have a better idea of what might be going on. I'll also be chatting with two people I know that run traplines in the heart of rWM range to see if they hav been observing caribou (and where) in recent years.

Just thought I'd share my observations with you. I hope I'm wrong.

Isabelle



Legend

RWMwint90%kernelDom0.3weight

SurveyTransectsJan142013

Surveysighitngs_WGS84Z20

RWM_pooled_sighitngs_final

rwmch_survey_data

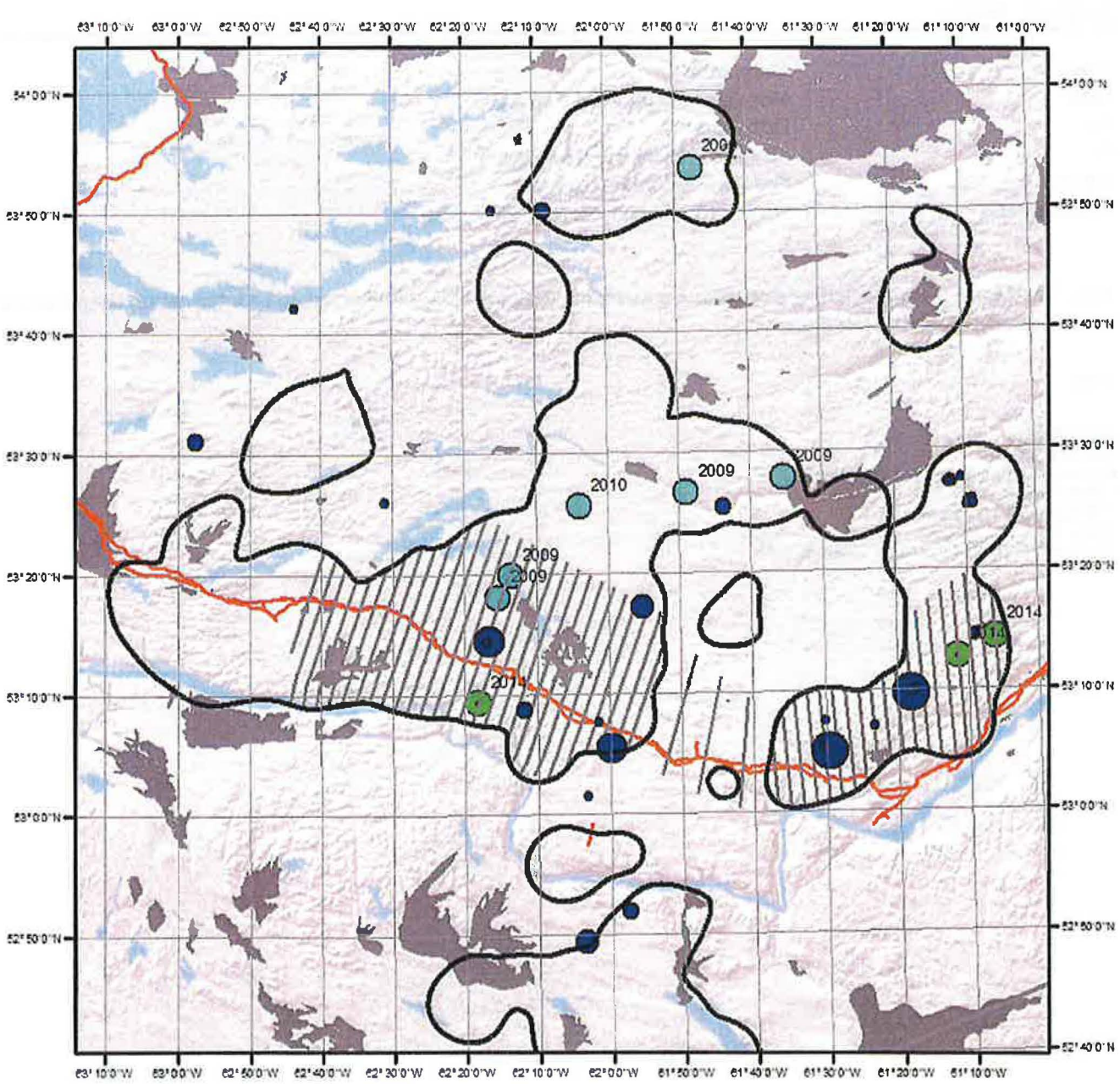
TOTAL

- 0
- 1 - 2
- 3 - 5
- 6 - 12
- 13 - 14

RWMnRivernewseas2000onELwinterNumAnim

num_anim

- 1
- 2
- 3
- 4
- 5-7



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