

DATE: March 20, 2020

TO: John Williams, Regional Wildlife Manager, Bemidji (e-copy)

FROM: Doug Franke, Area Wildlife Manager, Thief River Falls

SUBJECT: 2020 NW MN Elk Surveys

Minnesota DNR Fish and Wildlife and Enforcement staff used a single fixed-wing aircraft (Cessna 185 Skywagon) to conduct aerial elk surveys for the Grygla and Lancaster elk herds between February 11th and February 19th, 2020. As in the past, survey transects were spaced 1/5 mile apart and flown at an altitude of 300 to 400 feet and speeds of 80-90 mph. A pilot and two observers recorded elk locations and documented antlerless and antlered elk. Cow and calf elk were combined and recorded as antlerless since differentiating the two is difficult due to moving animals and the altitude and speed of the fixed-wing aircraft. Antlered elk were recorded as either branch antlered or spike bulls.

The Thief Lake Area Wildlife Manager requested to exclude the lower 22 survey plots of the Grygla survey block this year and in future years due to the large number of cattle farms and lack of elk observations in that area for the past decade. The same predetermined transects used in 2019 were flown for the Lancaster survey block. The Caribou-Vita elk survey block has not been completed at the time of this report pending improved snow conditions in Manitoba.

Observability conditions were considered very good this year. Snow depths and snow condition were fairly consistent and considered very good for both elk survey blocks. Snow depths ranged from 12 inches in the Grygla area and 16 to 20 in the Lancaster area. Weather conditions were average for this time of the year with temperatures ranging from a low of -20°F to a high of 28°F with sunny to cloudy skies. There was a one-day weather delay between the first and second days of the Grygla survey; and there was a two-day weather delay between the first and second days of the Lancaster survey and due to snow, low ceilings, and high winds.

Grygla Survey Block

This survey started on February 11th and after a one-day weather delay was completed on February 13, 2020. The area surveyed was 122 mi² (22 square miles were not flown this year as previously mentioned). Total aircraft engine time to complete this survey (takeoff to landing) was 9.8 hours. The fixed-wing crew recorded elk at 5 separate locations within the survey boundary--all elk were observed on the second survey day. Total elk observed was 24 and included: 14 antlerless and 10 bulls (9 branch antlered and 1 spike). Of special note is that all but one of the elk were located on State Wildlife Management Area land at the time of the survey.

Lancaster Survey Block—Water Tower and Percy WMA herds

This survey started on February 16th and was completed on February 19, 2020. The area surveyed was the same 167 mi² area that has been flown the past several years. Total aircraft time to complete the survey was 14.7 hours (takeoff to landing). The fixed-wing crew recorded elk at 10 separate locations within the survey boundary. Total elk recorded within the Lancaster block was 102 and included: 69 antlerless and 33 bulls (27 branch antlered and 6 spikes).

- The Water Tower herd had 41 antlerless elk and was again located in the same exact woodlot that the antlerless group was recorded in during the 2019 and 2018 surveys. This group was located one mile east of this woodlot in 2017. In addition, there were 12 branch antlered and 3 spike bulls located within 1 to 7 miles of the antlerless group.
- The Percy WMA herd had 29 antlerless that were located approximately 0.5 miles east of the Percy WMA (about 5 miles southeast of where they had spent the winters of 2018 and 2019). For the first time since I have been surveying these elk (2013), the antlerless herd was actually split into two groups of 19 and 9 animals separated by 1.25 miles. The antlerless groups for all the elk herds in the recent past have always been observed together during winter months. There were 13 branch antlered and 3 spike bulls observed 3.5 miles north of the antlerless group(s). Two branch antlered bulls were located 3.5 miles west of Lancaster.

Caribou-Vita Survey Block (a.k.a. border herd)

This survey block was not completed this year. Poor snow conditions in Manitoba and lack of funding precluded the Manitoba Wildlife staff from initiating the survey. Table 2 was included again this year as a reference—it details the age/sex breakdown for these two populations in Canada for 2017 and 2018.

Table 1 on page three summarizes MN DNR elk observations during the past five years of NW MN aerial elk surveys. The maps on pages 4 and 5 show the 2020 locations of elk within each survey block. The map on page 6 shows elk observations during surveys conducted from 2004 to 2018.

I would like again to thank all those that helped with the survey this year, especially the fixed-wing pilot Bob Geving who provided safe flying and A+++ landings for all of us (we won't hold the flat tire on the last landing against you!). Observers this year included: Kyle Arola (Thief Lake Area Wildlife Manager), Jason Wollin (Karlstad Assistant Area Wildlife Manager), and myself. Special thanks again to Brian Haroldson who put together all of the survey materials and computer used during the survey—much appreciated!

Table 1. Comparison of aerial survey elk observations between 2016 and 2020 for the Lancaster, Caribou-Vita, and Grygla herds.

	Lancaster					Caribou-Vita (US side of border)					Grygla				
	2016	2017	2018	2019	2020	2016	2017	2018	2019*	2020*	2016	2017	2018	2019	2020
Spike bull	6	2	5	11	6	0	0	1	-	-	2	4	2	1	1
Branch antlered bull	12	14	13	22	27	6	1	6	-	-	9	6	6	10	9
Total bulls	18	16	18	33	33	6	1	7	-	-	11	10	8	11	10
Antlerless	34	45	57	61	69	4	0	0	-	-	10	7	7	8	14

Total elk	52	61	75	94	102	10	1	7	-	-	21	17	15	19	24
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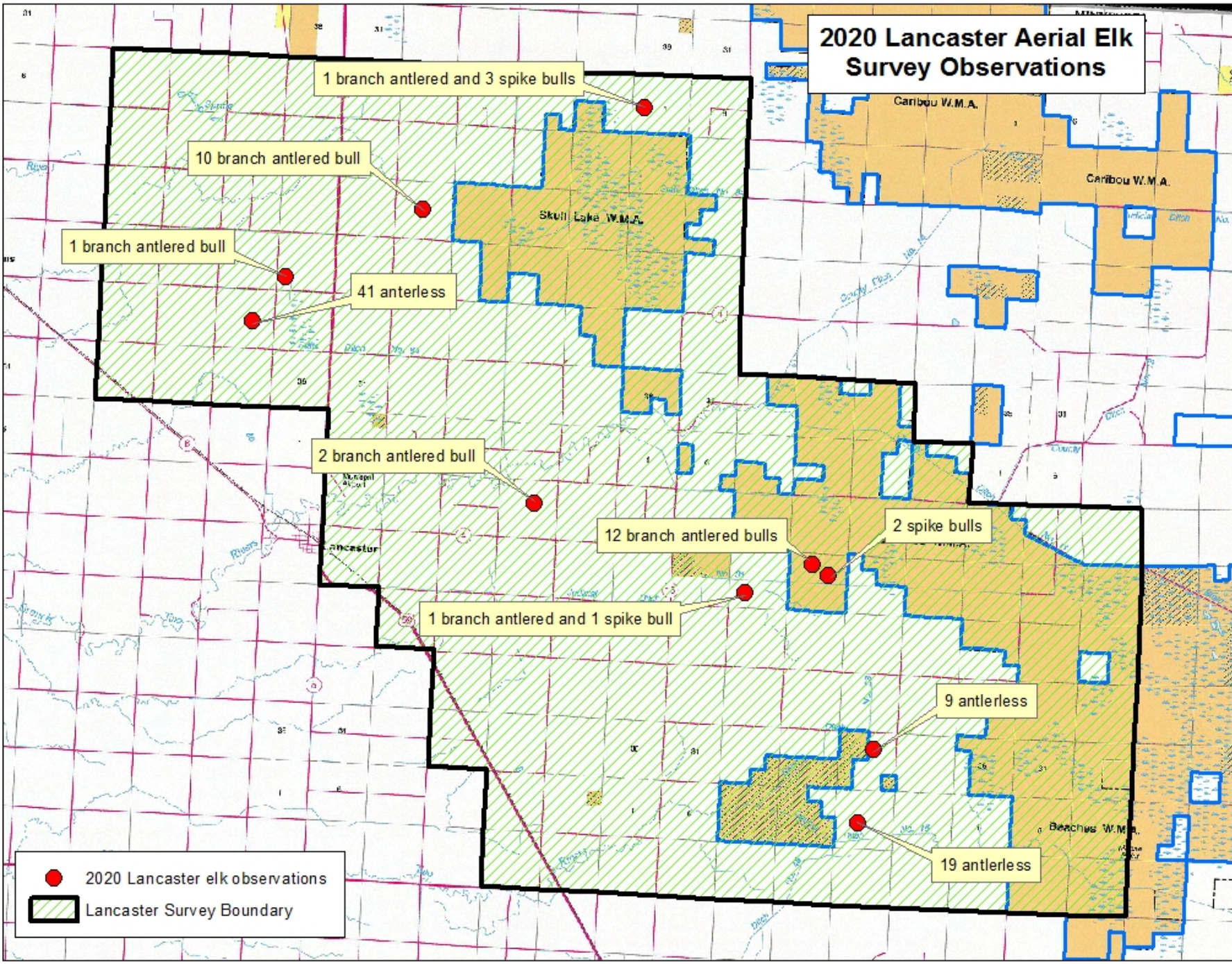
* Survey was not completed in 2019 or 2020

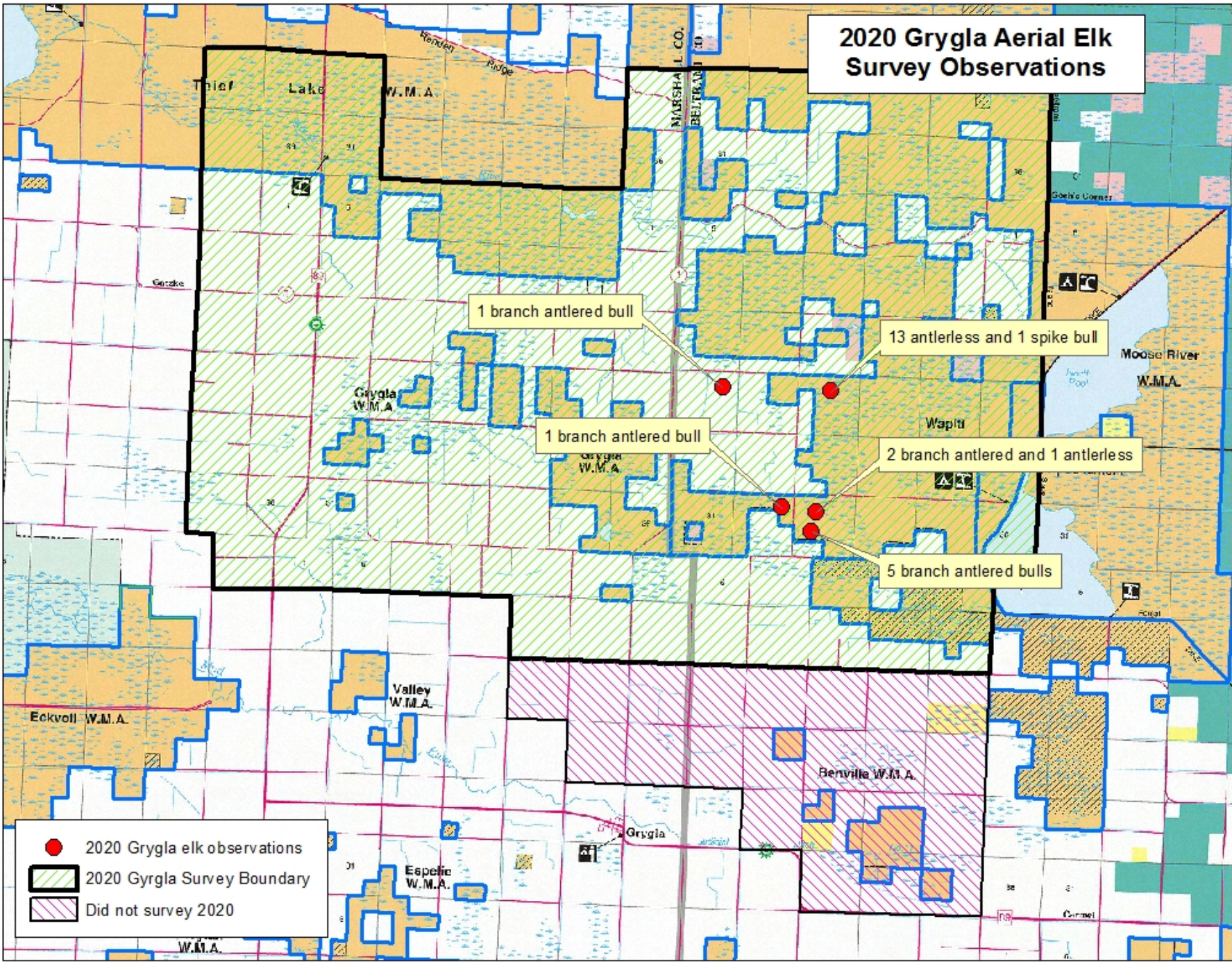
Table 2. Aerial survey elk observations recorded by Manitoba Wildlife—2017 and 2018

	Border (Caribou)		Vita		Combined Total	
	2017	2018	2017	2018	2017	2018
Spike bull	2	3	4	2	6	5
Branch antlered bull	17	12	7	5	24	17
Total bulls	19	15	11	7	30	22
Cow	68	*	32	*	100	*
Calf	21	*	12	*	33	*
Total antlerless	89	65	44	39	133	104

* Manitoba Wildlife did not differentiate antlerless elk between cows and calves in 2018

2020 Lancaster Aerial Elk Survey Observations





Kittson Elk Survey

