



## 2021 Minnesota Elk Harvest Report

Jason Wollin, Karlstad Area Wildlife Supervisor  
Kyle Arola, Thief Lake Wildlife Area Supervisor  
Barbara Keller, Big Game Program Leader

### Introduction

Legislation passed in 2016 (MN Statute 97B.516b) directed the Department of Natural Resources (DNR) to “...not manage an elk herd in Kittson, Roseau, Marshall, or Beltrami counties in a manner that would increase the size of the herd, including adoption or implementation of an elk management plan designed to increase an elk herd, unless the commissioner of agriculture verifies that crop and fence damages paid under section 3.7371 and attributed to the herd have not increased for at least two years.” In response, DNR adopted an Interim Strategic Management Plan for Elk in 2016 that will maintain a status quo in elk numbers at the current population estimates. This plan set herd goals at 50 – 60 elk for the Kittson Central herd, 30-38 elk for the Grygla herd, and 150-200 elk for the Caribou Vita herd. Plans will be made to update the Strategic Management Plan for Elk in the near future.

The DNR conducts an annual aerial elk population survey each winter using a fixed-wing aircraft to fly over survey blocks consistent with the range of each elk herd. Due to COVID restrictions, we were unable to complete an aerial elk survey in 2021. Normally DNR staff use a single fixed-wing aircraft to conduct aerial elk surveys for the Grygla and Kittson elk herds. The last aerial elk survey was done in 2020. Survey results for 2020 are presented in Table 1 and Figure 1 for the Kittson Central herd. Total elk recorded within the Kittson Central block was 102 and included 69 antlerless elk and 33 bulls. In the Grygla survey block, 24 total elk were observed including 10 bulls and 14 antlerless elk. A survey was not conducted over the Caribou-vita herd since Manitoba was unable to conduct a joint-survey at the same time.

This year, due to the lack of available data on elk numbers from an aerial survey, less licenses were offered to Minnesota hunters. There were two established zones open for elk hunting in Minnesota in 2021: 1) Zone 20 - Kittson Central and 2) Zone 30 - Kittson Northeast (Figure 2). Elk hunting in Zone 10 - Grygla, has been closed since 2013 because the population is below goal (Figure 3). In an effort to move the Kittson Central herd towards goal range, this year the number of seasons held in Zone 20 was four regular season hunts. Another change in 2020 required hunters to apply for both the specific license type (either-sex, bull-only, or antlerless-only) and season dates. For the Zone 20 - Kittson Central there were eight license/season date options: 1) Season A/E – August 28 through September 5, 2) Season B/F - September 11 through September 19, 3) Season C/G – September 25 through October 3, 4) Season D/H - October 9 through October 17. There was one regular season hunt in Zone 30 – Kittson Northeast for two bull-only licenses: 1) Season I - September 11 through September 19. All of the seasons were 9 days in length, including two weekends. These dates were also chosen to avoid conflict with the Youth Firearm Deer Season on October 21 through October 24 and the Regular Firearm Deer Season November 6 through November 14. Overall, hunter success rates were high this year.

## **Hunting season options and license lottery**

A total of 30 licenses were available and 4,448 individuals or parties (up to two hunters) applied for the opportunity to hunt elk in Minnesota (Table 2). Applicants were given the opportunity to select both zone and season in which to hunt. Seasons in Zone 20 were also split between either-sex and antlerless-only licenses. This allowed applicants to choose the type of license desired during their application.

The Minnesota elk lottery is a three-step process. First, a lottery for qualifying landowner applicants is held for Zone 20 (20% = 5 licenses offered). Once landowner applicants were selected, the second round was for applicants that had applied for 10 years or more (20% = 5 licenses offered). All remaining applicants not selected in the first two steps were then placed into the general drawing with all the other applicant names for the remaining elk licenses (60%) available in the zone and season they had selected on their application. Zone 30 only had two bull-only licenses available, so no landowner licenses or 10 year history licenses were offered.

## **Hunter orientation and elk sample collection**

All elk hunters are required to attend a mandatory orientation session the Friday before a given hunt. At this session, DNR staff go over the logistics of the elk hunt and explain how we collect biological samples from their harvested animal. Hunters must register their animal in person within 24 hours at the local DNR office and provide biological samples. DNR staff help map the harvest location, provide a possession tag, and collect biological samples. DNR staff collect lymph nodes, the obex (brain stem), muscle, hair, and a tooth so an accurate age can be determined via cementum annuli. Alternative arrangements are made for the collection of some samples, if immediate collection would interfere with a hunter's planned taxidermy mount. DNR staff submit all biological samples to the DNR Wildlife Health Program for disease testing and other monitoring projects.

## **Elk harvest results**

In 2021, a total of 25 elk were harvested in Zones 20 and 30 (Table 3), for an overall hunter success rate of 82% for Zone 20 and 100% for Zone 30. Although success rates were generally high, there was a gradual decrease in success rates for Zone 20 as the seasons progressed. Seven bull elk were taken from hunters using either-sex licenses for Zone 20, and 16 antlerless elk were taken by hunters using antlerless-only licenses. Two bull elk were taken by hunters using bull-only licenses for Zone 30. Long-term elk harvest for all zones is depicted in Tables 4, 5, and 6.

Table 1. Kittson Central (Zone 20) elk survey count, 2008-2021

Year	Number of bulls surveyed	Number of antlerless surveyed	Total number surveyed
2008	14	46	60
2009	16	29	45
2010	NO SURVEY COMPLETED THIS YEAR		
2011	12	31	43
2012	NO SURVEY COMPLETED THIS YEAR		
2013	17	28	45
2014	17	20	37
2015	18	16	34
2016	18	34	52
2017	16	45	61
2018	18	57	75
2019	33	61	94
2020	33	69	102
2021	NO SURVEY COMPLETED THIS YEAR		

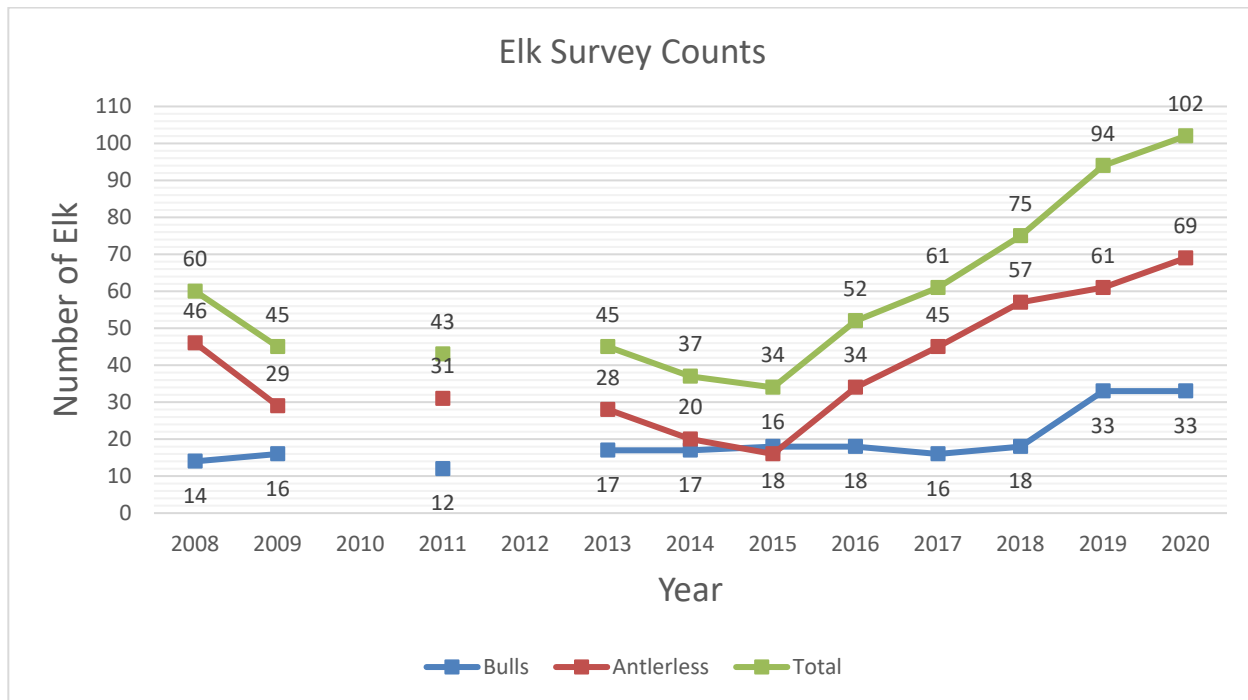


Figure 1. Kittson Central (Zone 20) elk survey count, 2008-2021

Table 2. License allocation and application numbers of the 2021 Minnesota elk seasons

Zone	Season Dates	Bull-Only	Either-Sex	Antlerless-Only	Total	Total Applicants
Zone 20	A: Aug 28-Sept 5	0	2	0	2	655
Zone 20	E: Aug 28-Sept 5	0	0	5	5	93
Zone 20	B: Sept 11-19	0	2	0	2	1126
Zone 20	F: Sept 11-19	0	0	5	5	129
Zone 20	C: Sept 25-Oct 3	0	2	0	2	793
Zone 20	G: Sept 25-Oct 3	0	0	5	5	189
Zone 20	D: Oct 9-17	0	2	0	2	570
Zone 20	H: Oct 9-17	0	0	5	5	146
Zone 30	I: Sept 11-19	2	0	0	2	747
OVERALL	TOTAL	2	8	20	30	4,448

Table 3. Distribution of the 2021 Minnesota elk harvest.

**Kittson County Central Hunt Zone 20**

Season	Either-Sex Licenses	Antlerless Licenses	Bulls taken	Antlerless taken	Total elk taken	Success rate
Season A & E (Aug 28-Sept 5)	2	5	2	4	6	86%
Season B & F (Sept 11-19)	2	5	2	5	7	100%
Season C & G (Sept 25-Oct 3)	2	5	2	4	6	86%
Season D & H (Oct 9-17)	2	5	1	3	4	57%
<b>Total</b>	<b>8</b>	<b>20</b>	<b>7</b>	<b>16</b>	<b>23</b>	<b>82%</b>

**Kittson County Northeast Hunt Zone 30**

Season	Bulls-only Licenses	Antlerless Licenses	Bulls taken	Antlerless taken	Total elk taken	Success rate
Season I (Sept 11-19)	2	0	2	0	2	100%
<b>Total</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>100%</b>

Table 4. Grygla (Zone 10) elk harvests, 1987-2012

Year	Total Bull or Either-Sex Licenses	Total Bulls Harvested	Total Antlerless Licenses	Total Antlerless Harvested	Total Harvest	Hunter Success Rate
1987	2	1	2	1	2	50%
1996	2	2	7	6	8	89%
1997	5	1	5	2	3	30%
1998	4	2	0	0	2	50%
2004	1	1	4	2	3	60%
2005	1	0	4	0	0	0%
2006	2	2	6	2	4	50%
2007	0	0	6	6	6	100%
2008	2	2	10	6	8	67%
2009	2	2	12	12	14	100%
2010	2	1	5	3	4	57%
2011	2	2	3	0	2	40%
2012	2	1	3	0	1	20%

Table 5. Kittson Central (Zone 20) elk harvests, 2008-2021

Year	Total Bull or Either-Sex Licenses	Total Bulls Harvested	Total Antlerless Licenses	Total Antlerless Harvested	Total Harvest	Hunter Success Rate
2008	1	1	10	10	11	100%
2009	12	9	4	5	14	88%
2010	1	1	3	3	4	100%
2011	2	3	6	4	7	88%
2012	3	3	13	3	6	38%
2013	6	4	15	6	10	48%
2014	7	4	0	0	4	57%
2015	5	3	0	0	3	60%
2016	5	3	0	0	3	60%
2017	6	5	2	1	6	75%
2018	4	3	16	12	15	75%
2019	4	4	21	10	14	56%
2020	18	15	24	20	35	83%
2021	8	7	20	16	23	82%

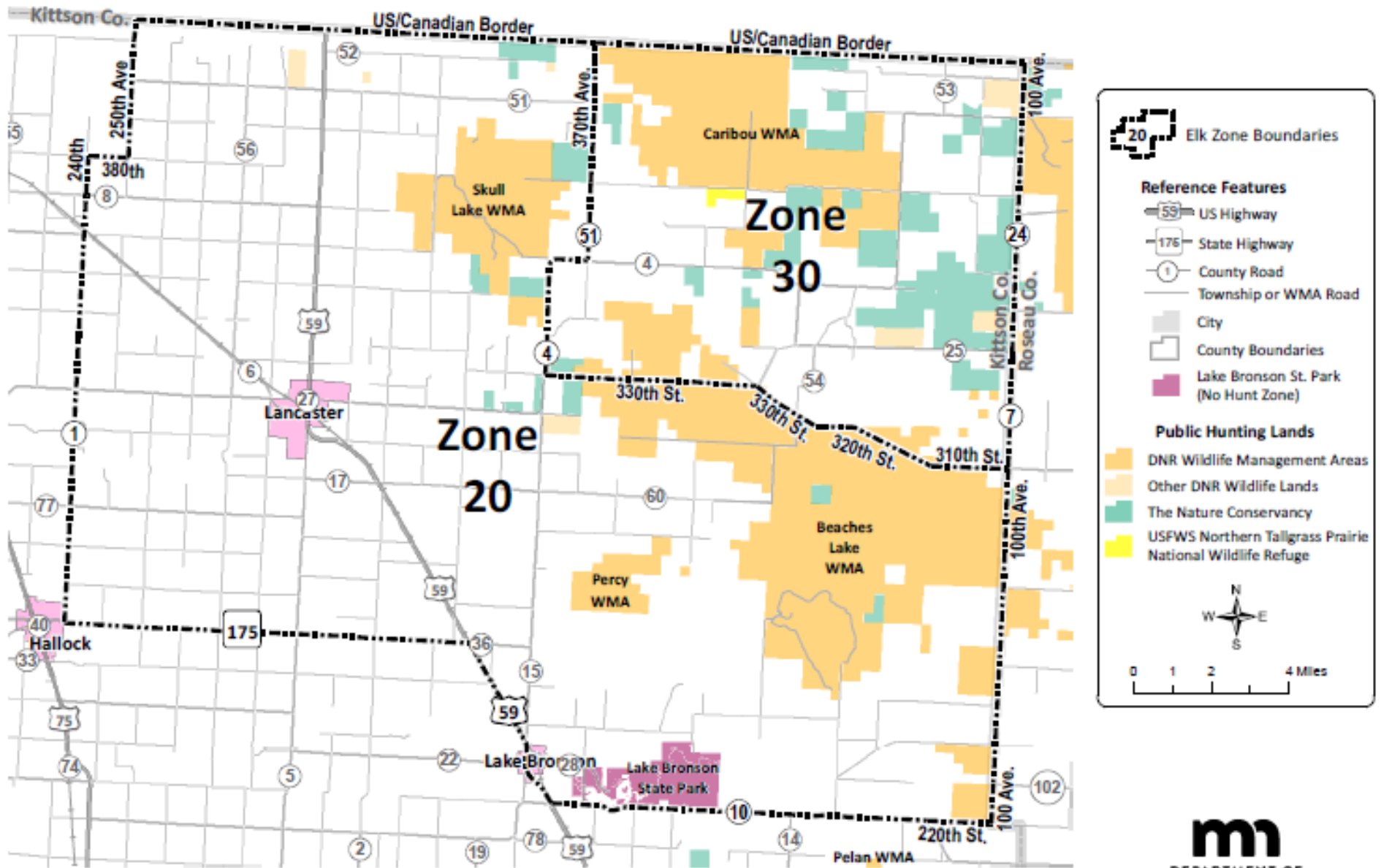
Table 6. Kittson Northeast (Zone 30) elk harvests, 2012-2021

Year	Total Bull Licenses	Total Bulls Harvested	Hunter Success Rate
2012	2	1	50%
2013	2	2	100%
2014	2	2	100%
2015	2	2	100%
2016	2	2	100%
2017	5	4	80%
2018	2	2	100%
2019	2	1	50%
2020	2	2	100%
2021	2	2	100%



Figure 2. Kittson County Elk Hunt Zones.

## Minnesota Elk Hunt Zones



**20** Elk Zone Boundaries

**Reference Features**

- US Highway
- State Highway
- County Road
- Township or WMA Road
- City
- County Boundaries
- Lake Bronson St. Park (No Hunt Zone)

**Public Hunting Lands**

- DNR Wildlife Management Areas
- Other DNR Wildlife Lands
- The Nature Conservancy
- USFWS Northern Tallgrass Prairie National Wildlife Refuge

0 1 2 4 Miles

Figure 3. Grygla Elk Hunt Zone.

