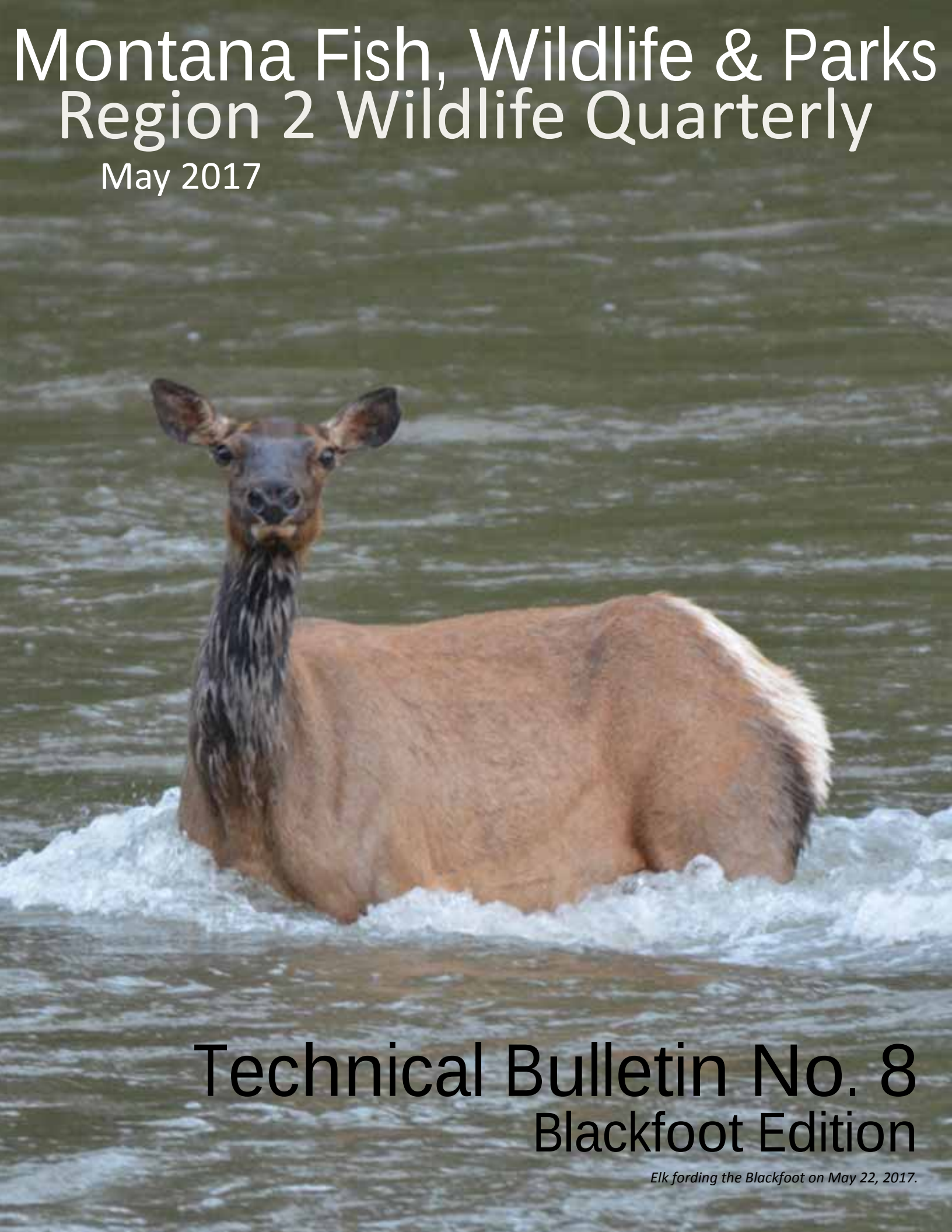
Montana Fish, Wildlife & Parks
Region 2 Wildlife Quarterly

May 2017



Technical Bulletin No. 8

Blackfoot Edition

Elk fording the Blackfoot on May 22, 2017.

Montana Fish, Wildlife & Parks
Region 2 Wildlife Quarterly

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The Region 2 Wildlife Quarterly is a product of Montana Fish, Wildlife & Parks; 3201 Spurgin Road; Missoula 59804. Its intent is to provide an outlet for a depth of technical information that normally cannot be accommodated by commercial media, yet we hope to retain a readable product for a wide audience. While we strive for accuracy and integrity, this is not a peer-refereed outlet for original scientific research, and results are preliminary. October 2015 was the inaugural issue.

Shadows

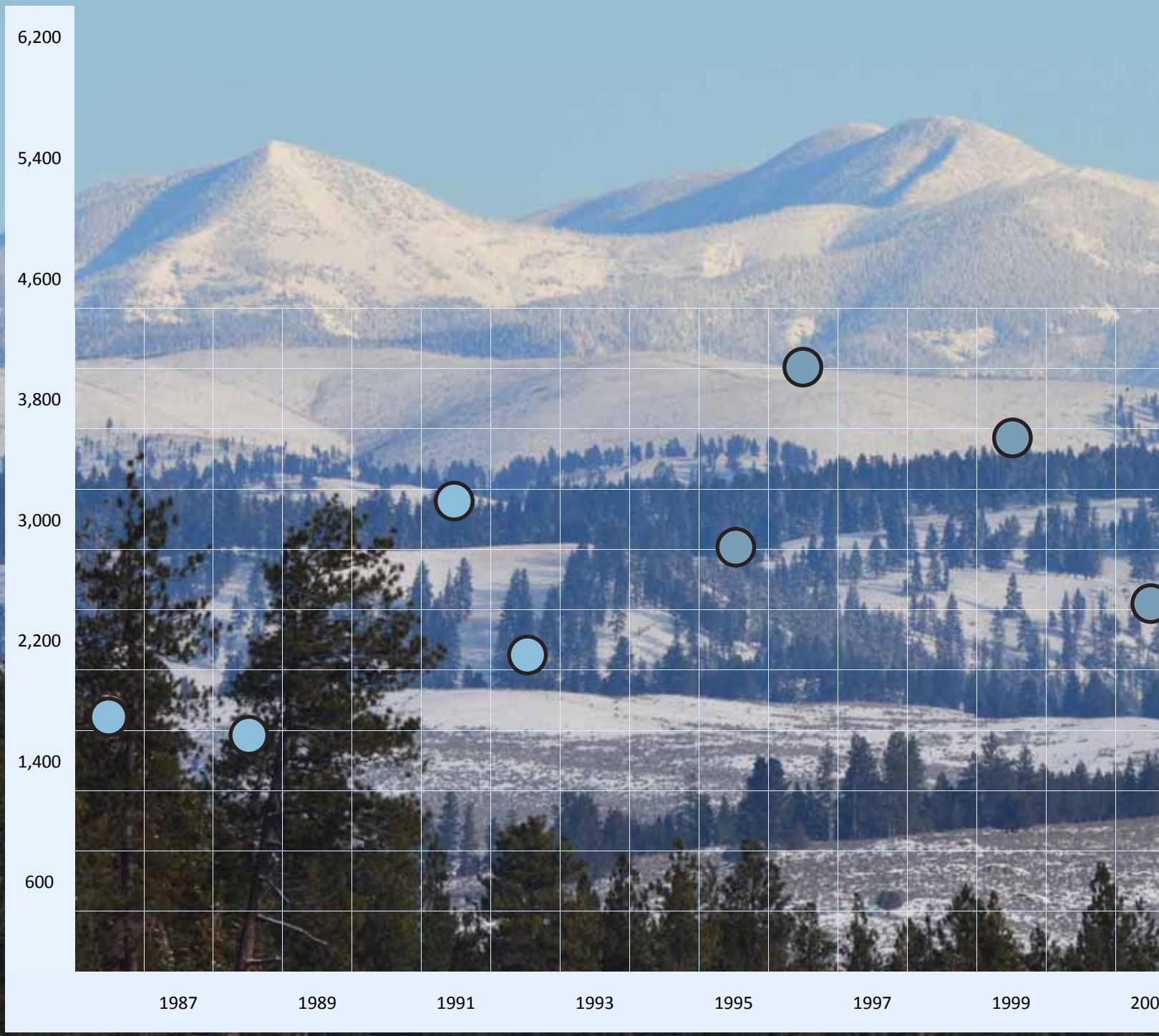
Bull elk cast quite a shadow in Montana. Even for FWP wildlife biologists and pilots, in the heat of their annual surveys, mature bull elk cause camera lens caps to fly off onto the floor of the helicopter. Even given the advantage that a helicopter offers, bulls are statistically less likely to be observed than cows and calves because they generally winter in smaller groups and are more likely to stay back in the timber. So, the ratios of bulls per hundred cows, which biologists derive from their survey data, are usually conservative indications of bull survival. We see quite a bit of year-to-year variation in the observability of bulls as well.

This issue of the Quarterly reports the results of FWP's elk counts in the Blackfoot Watershed this winter and early spring. It was biologist Scott Eggeman's third survey season with FWP, which provided him with an ever improving basis for assessing changes from one year to the next, and greater perspective from which to ask better questions of his surveys. Scott has found that a number of his surveys are best accomplished when elk are congregated on winter ranges, while in others of his hunting districts, his counts are more consistent and repeatable when timed with the advancing spring green-up.

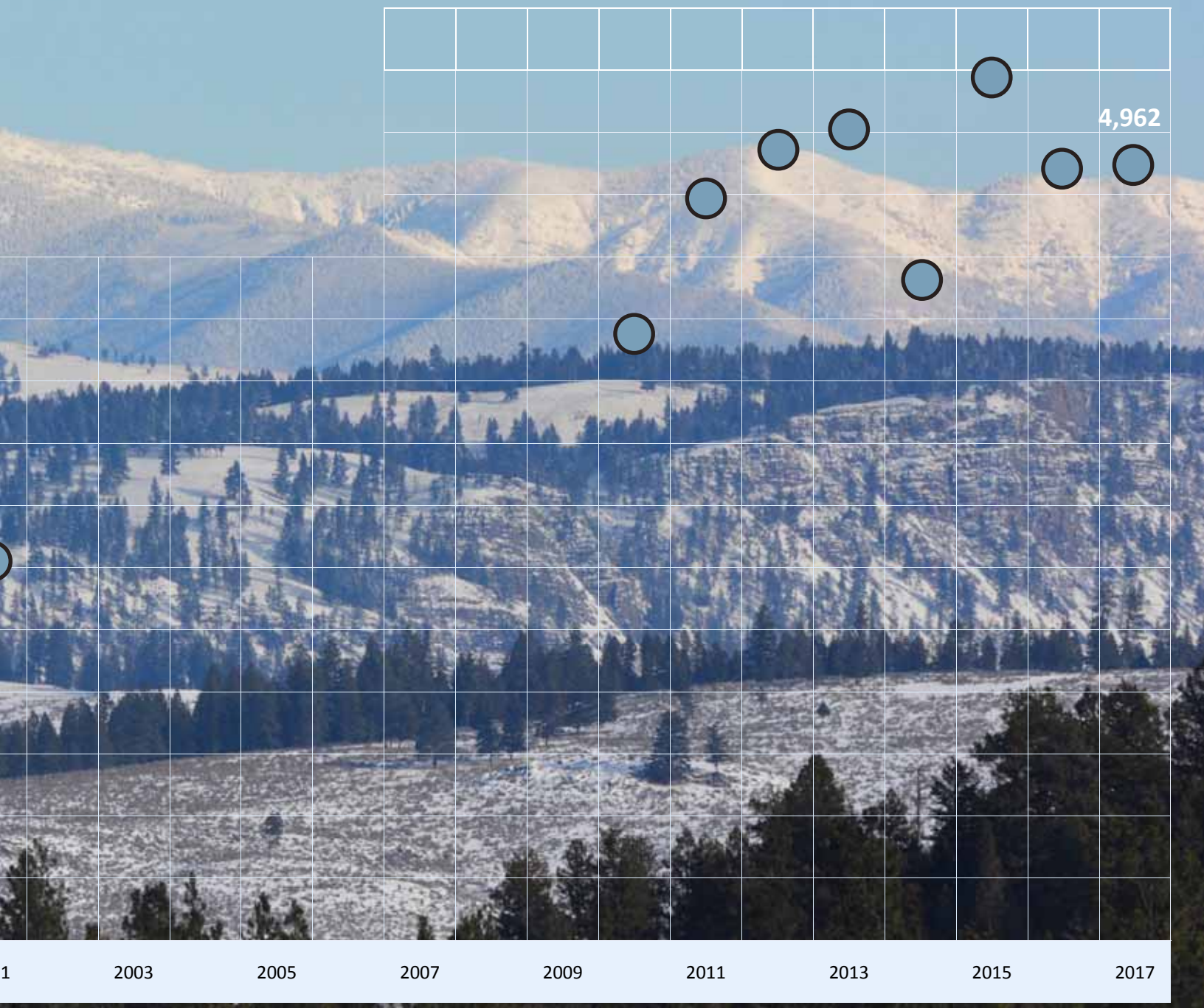
Weather patterns have been detrimental for low-level aviation in the first half of 2017, which raised havoc with our survey protocols. In Scott's case, the spring green-up period passed before the weather allowed him to cover all of the elk range that he had planned to cover. This commonly occurs in the Blackfoot and was not unexpected. And it did not preclude Scott from getting a good feeling for the pulse of elk populations in the Blackfoot. Following are his results.

Blackfoot 1986-2017

Elk Trend

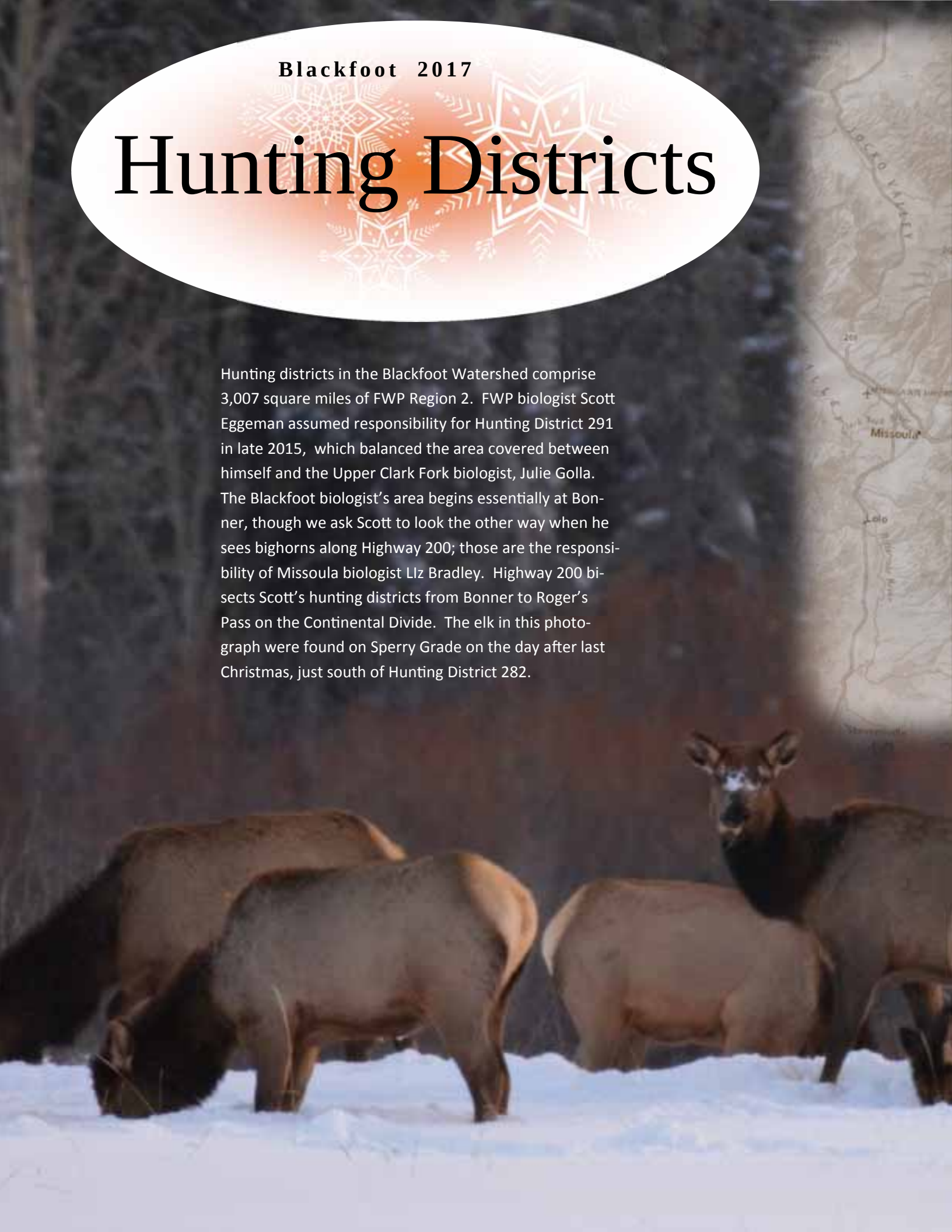


Elk counts across the Blackfoot Watershed are a bit noisy, due to some flights being completed in some years, but not in others. And, elk in one portion of the Blackfoot may have increased at some point in history while elk in another portion were stable or decreasing. In other words, all elk in all places in the Blackfoot often don't trend in the same direction. Still, the overall trend since 1986 is upward, and since about 2011 is steady.



Hunting Districts

Hunting districts in the Blackfoot Watershed comprise 3,007 square miles of FWP Region 2. FWP biologist Scott Eggeman assumed responsibility for Hunting District 291 in late 2015, which balanced the area covered between himself and the Upper Clark Fork biologist, Julie Golla. The Blackfoot biologist's area begins essentially at Bonner, though we ask Scott to look the other way when he sees bighorns along Highway 200; those are the responsibility of Missoula biologist LIz Bradley. Highway 200 bisects Scott's hunting districts from Bonner to Roger's Pass on the Continental Divide. The elk in this photograph were found on Sperry Grade on the day after last Christmas, just south of Hunting District 282.



200
200
200

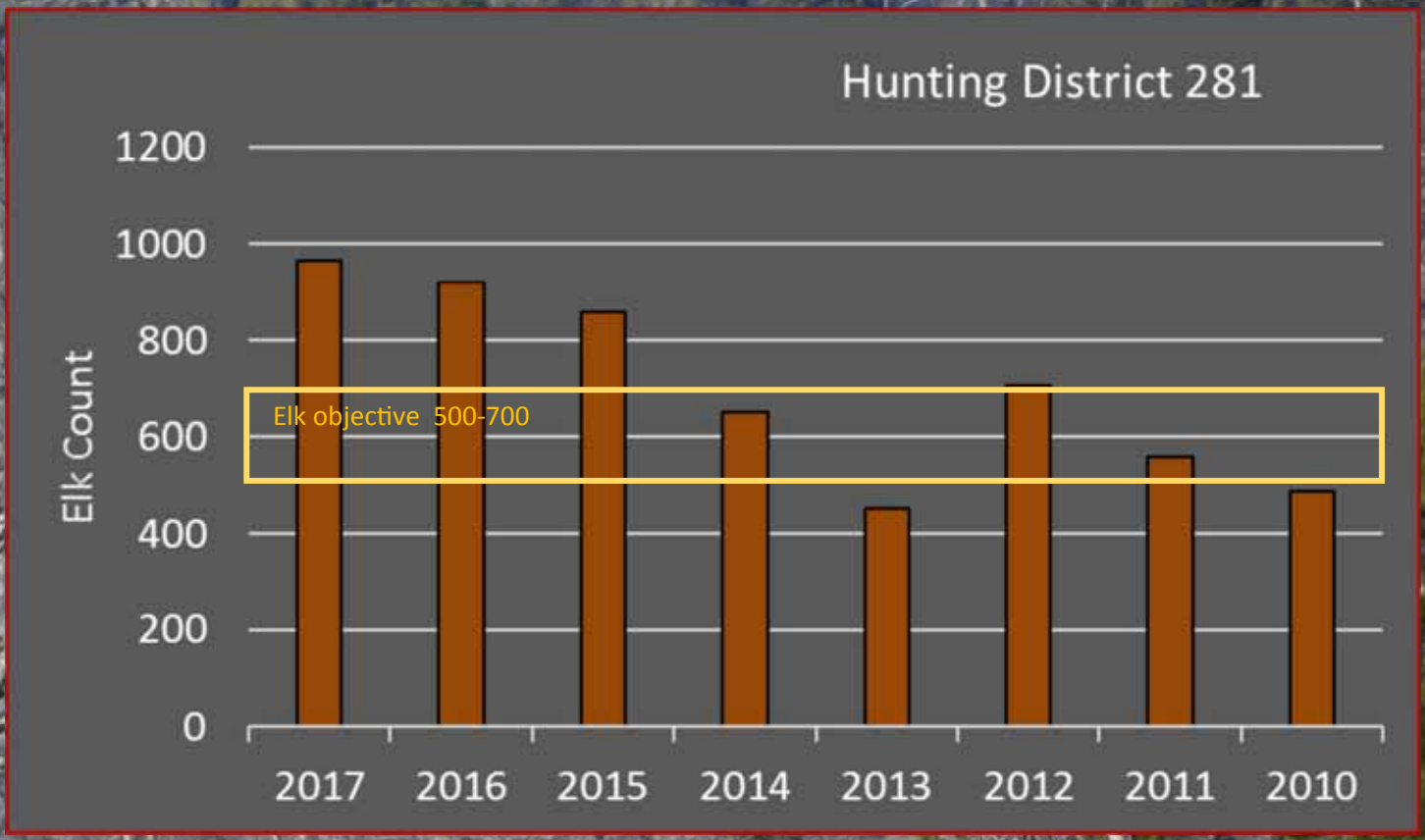
Blackfoot 2017

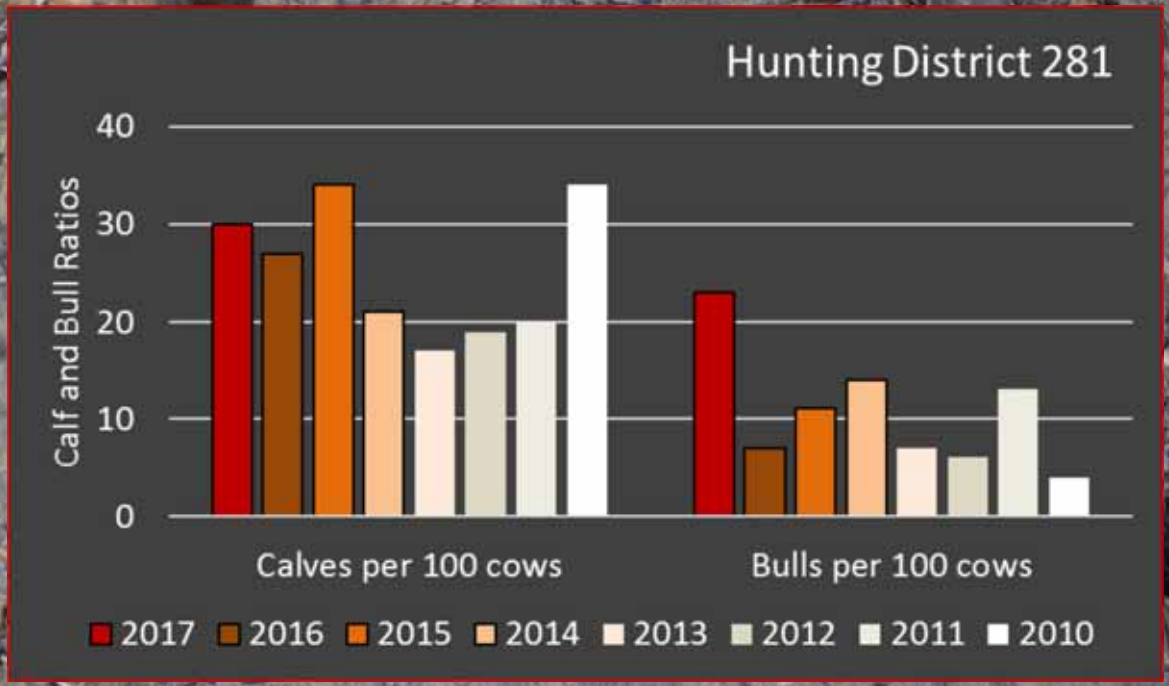
HD 280 & 281

The count of 966 elk for Hunting District 281 in 2017 was a record high for that district, and fell above the objective set in Montana's Statewide Elk Management Plan for the third consecutive year. Elk objectives are set with public involvement to balance people's interests in having elk with the economic impacts that elk can have on crops and fences. FWP and the public were concerned about elk numbers in this area in the early 2010s, due to low calf recruitment, so hunting pressure was limited to see whether elk numbers would grow in response.

Also, the ratios of calves and bulls per hundred cows were good for this area this year—an encouraging result.

Hunting District 280 is summer range for elk that winter in HD 281. So the trend for elk in HD 281 is more or less reflective of the elk trend in HD 280.


Hunting District 281
Elk Count
1200
1000
800
600
400
200
0
Elk objective 500-700
2017
2016
2015
2014
2013
2012
2011
2010


Hunting District 281
Calf and Bull Ratios
40
30
20
10
0
Calves per 100 cows
Bulls per 100 cows
2017
2016
2015
2014
2013
2012
2011
2010

Blackfoot 2017

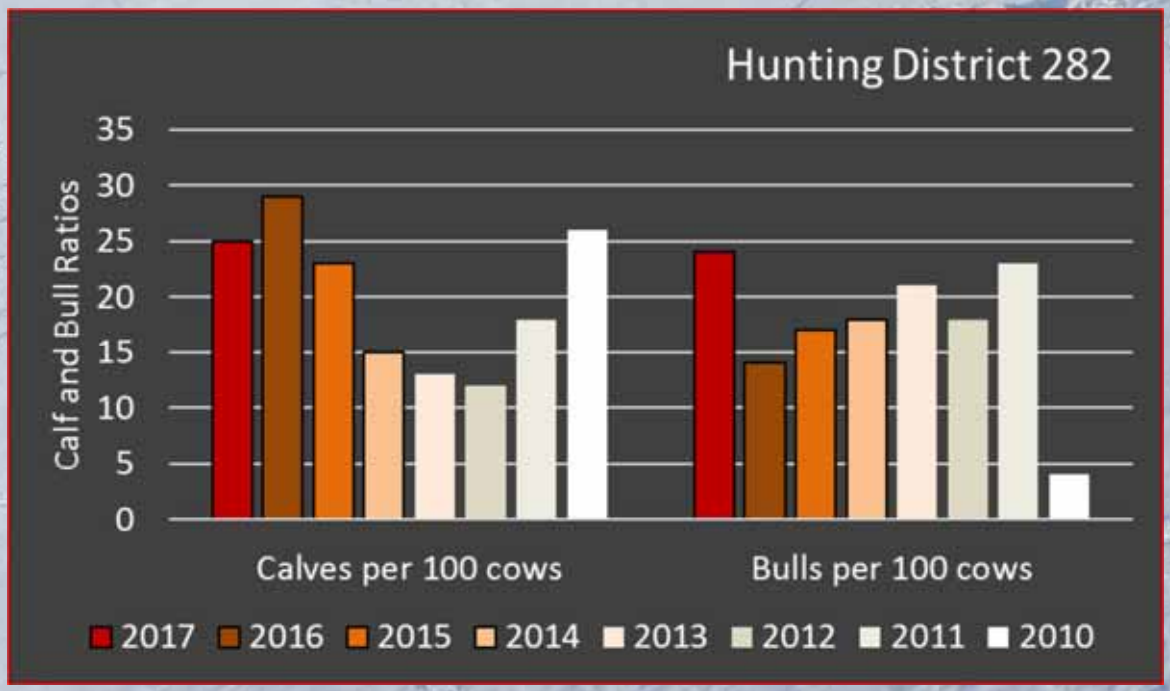
HD 282 & 285

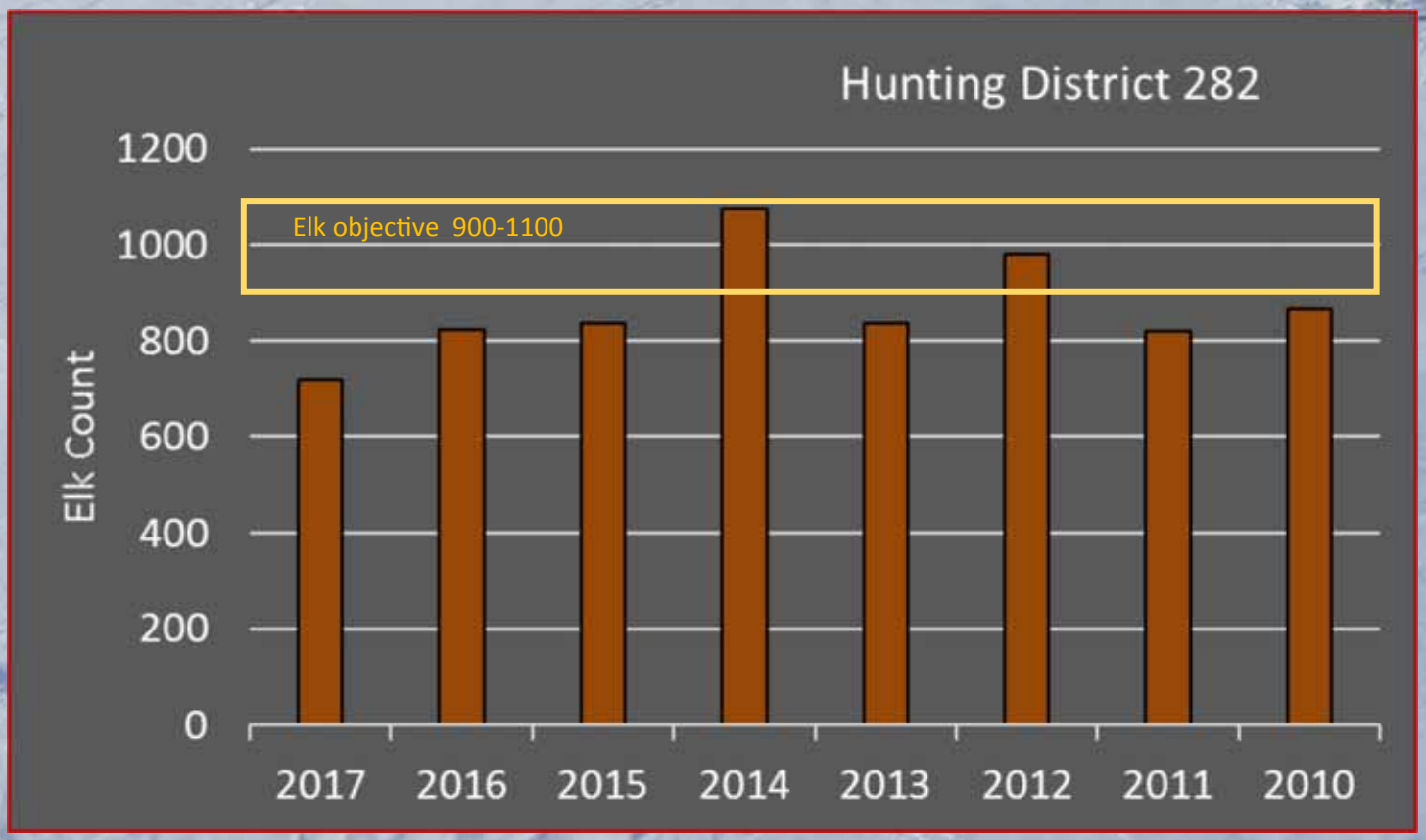
The count of 718 elk for Hunting District 282 in 2017 was relatively low, and below the Elk Plan objective for that district. Elk surveys in HD 282 must be timed fairly precisely with weather conditions and sometimes the helicopter isn't available at the right time, as was the case this year. As snow accumulates in the winter, elk move from the open bunchgrass slopes of the Blackfoot-Clearwater Wildlife Management Area to forested habitat where food can be found on and around the trees, above the crusted snowpack.

Good counts happen when the elk are in the open, in early winter.

The ratios of calves and bulls per hundred cows were good for this area this year.

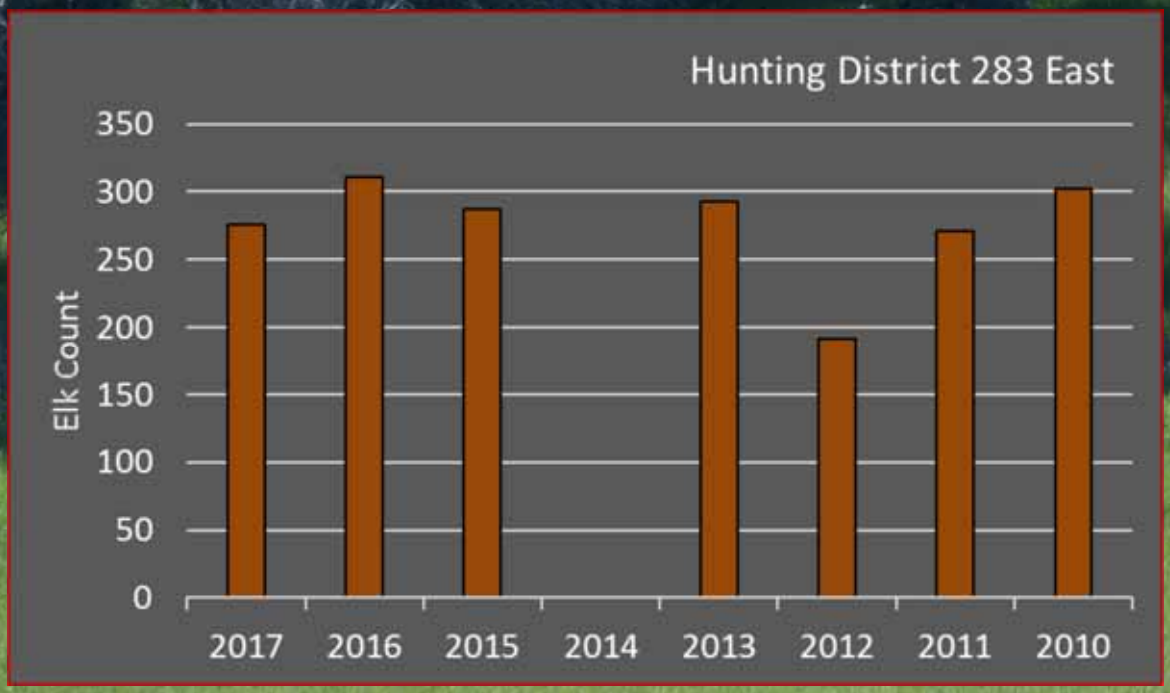
Hunting District 285 is summer range for elk that winter in HD 282. So the trend for elk in HD 282 is more or less reflective of the elk trend in HD 285.



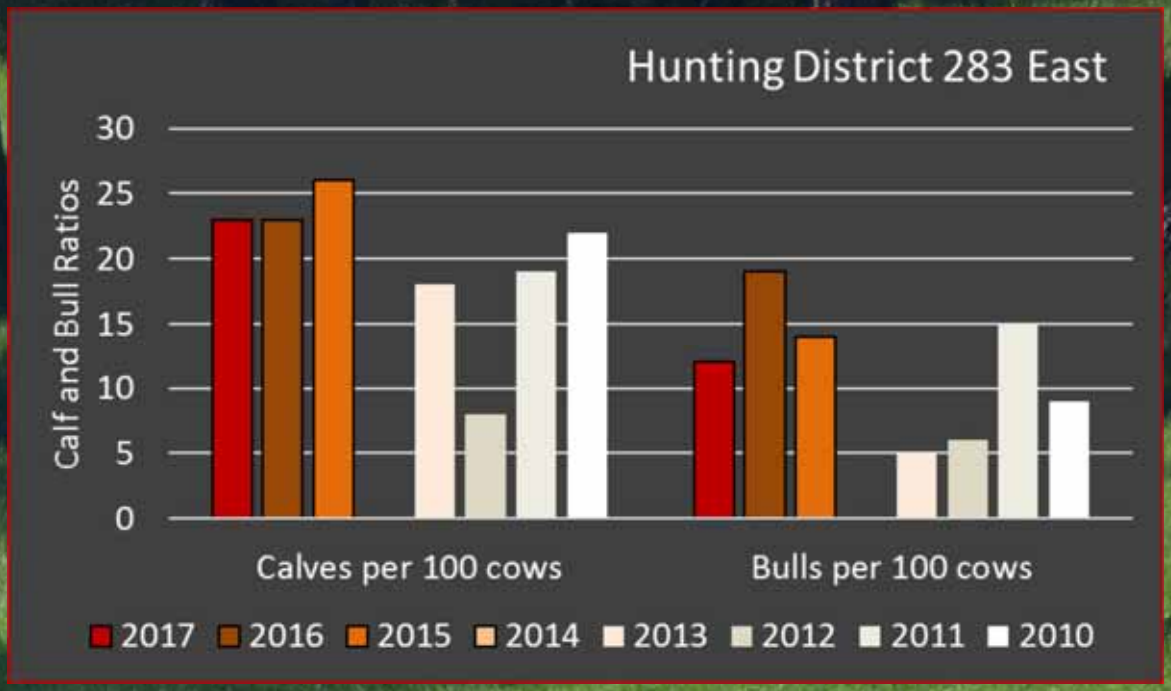

Hunting District 282
Elk objective 900-1100
Elk Count
1200
1000
800
600
400
200
0
2017
2016
2015
2014
2013
2012
2011
2010

Blackfoot 2017

HD 283 East



The count of 276 elk for Hunting District 283 East in 2017 was on par with counts in recent years, and below the Elk Plan objective of 400-600 elk for the eastern portion of HD 283. The eastern portion runs from Twin Creek to Belmont Creek.

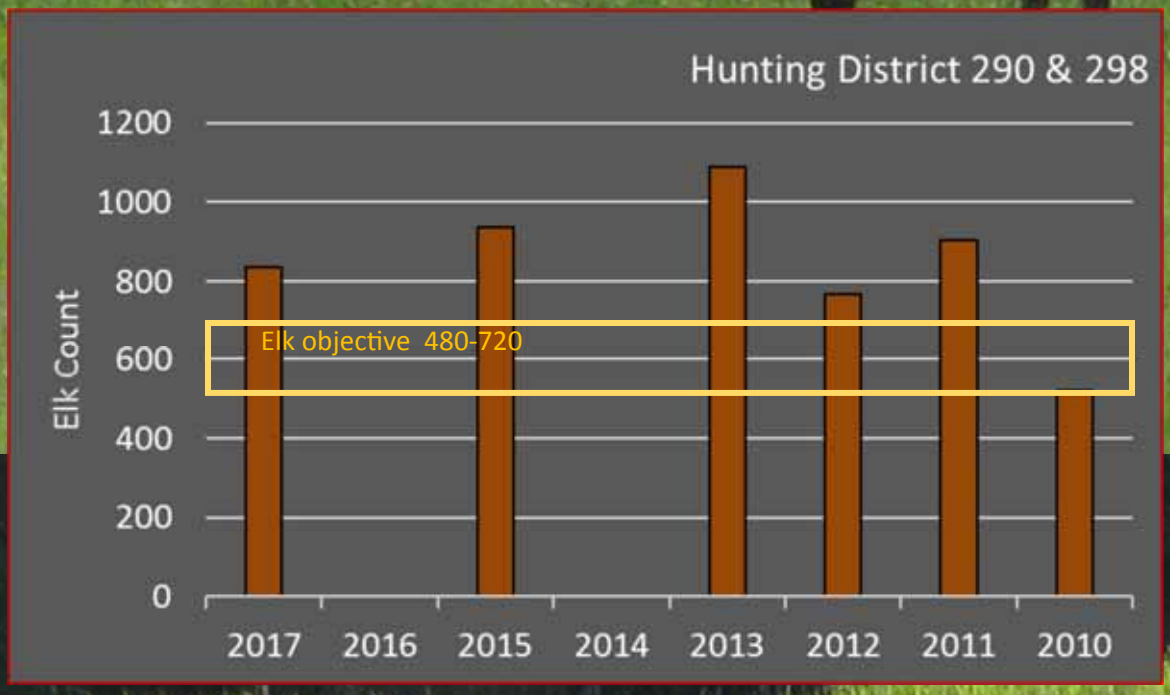


The ratios of calves and bulls per hundred cows have been improving, fortunately, since the early 2010s.

This photograph is of elk and white-tailed deer (look closely) on green-up in the Case Ranch fields, east of Potomac It's a familiar sight to people driving by on Highway 200, as it has been for decades. This latest experience occurred on May 22, 2017.

Blackfoot 2017

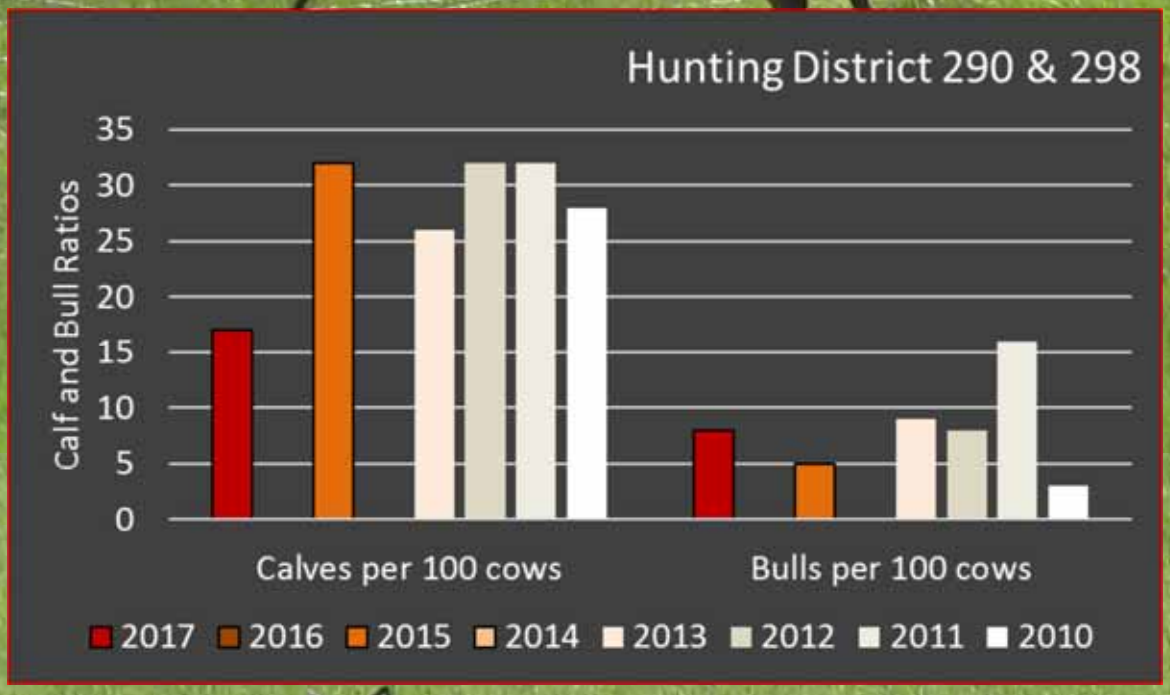
HD 290 & 298



The count of 845 elk for Hunting Districts 290 & 298 in 2017 was down slightly from a peak in 2013. These are elk that live on private land year-round in the Ovando and Helmville valleys. They are hard to count reliably because they also use other hunting districts in winter and spring. It's a challenge to fly when most of the elk are in the survey unit. Whether all elk were counted or not, the count remains above the objective range.

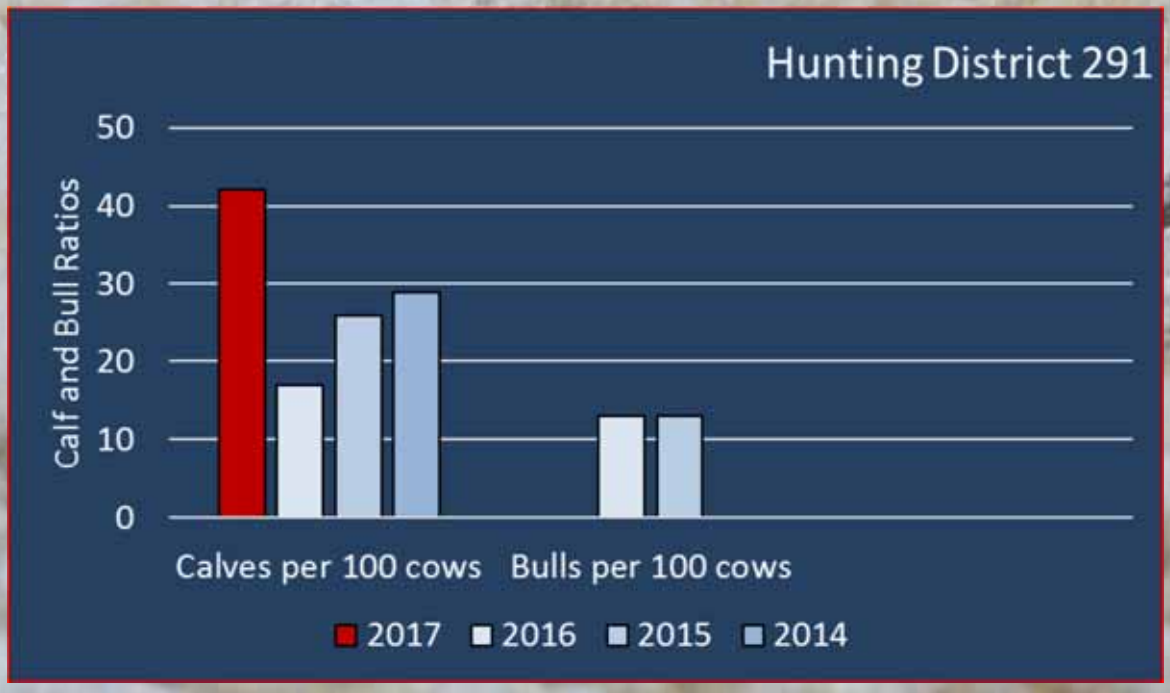
The ratios of calves per hundred cows was quite low this year, compared with other hunting districts and other years in this hunting district. Bulls usually don't winter within the survey area and the bull ratio from this survey area is not very useful for management.

This photograph in the Helmville Valley illustrates how fences affect elk movements, and how elk movements affect fences.



Blackfoot 2017

HD 291

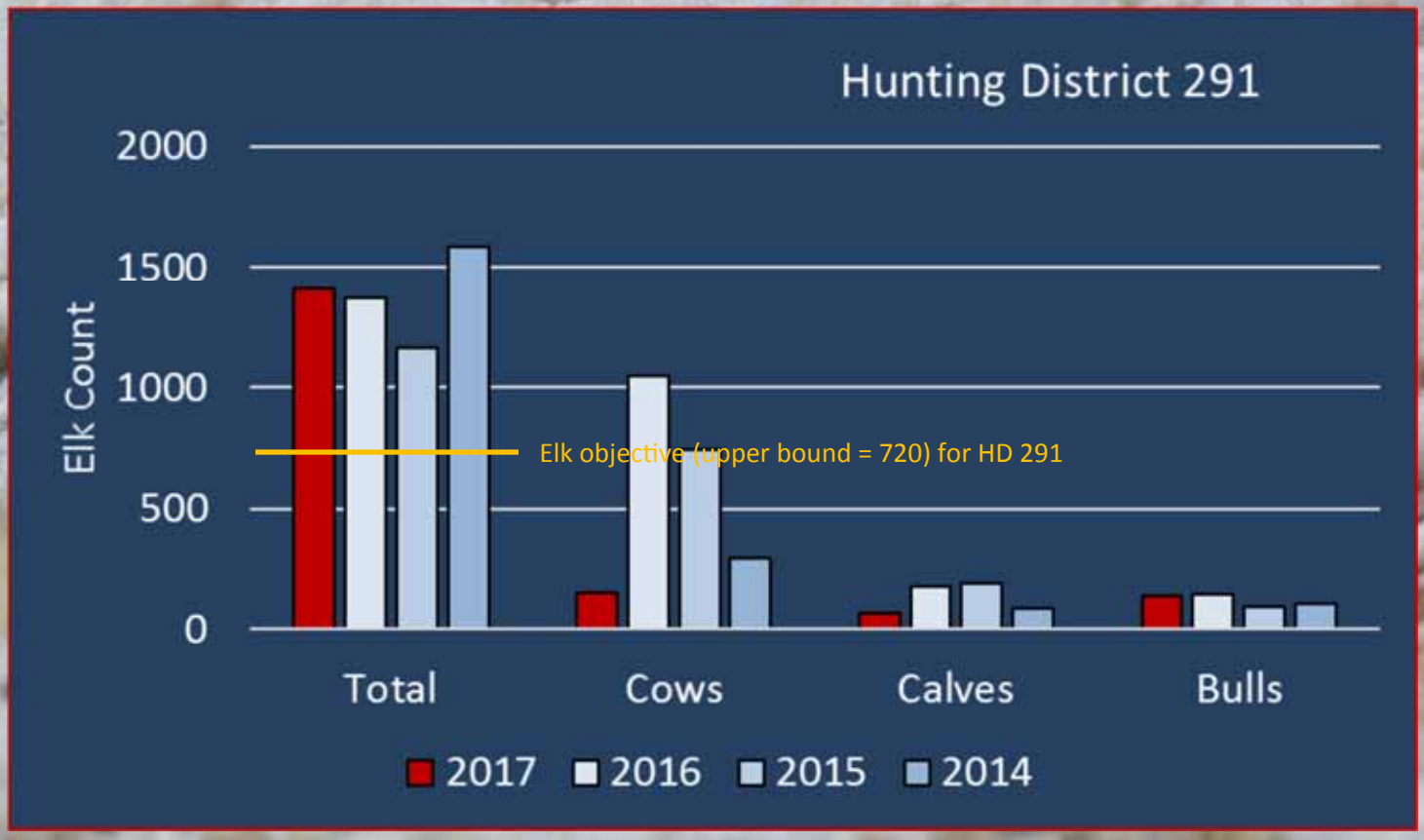


The count of 1,411 elk in Hunting District 291 in 2017 continued an upward trend since 2015. Elk counts in this district continue to climb above the objective (upper bound) set per the Statewide Elk Management Plan, and are affected by elk and land management in adjacent districts.

As in other districts in the Blackfoot this winter, calf ratios were good, although it should be noted that relatively few elk were classified and may not be representative of the larger population. As in 2014, we had too many unclassified elk in the count to calculate a valid bull: cow ratio at all. This problem arises when we're able to classify bulls because of their antlers, but can't distinguish a lot of the cows from the calves. (See graph below.)

We snapped this photo in February, as the late shoulder season in HD 291 was winding down. Golden eagles don't need a special license, and they only pose a threat to the occasional and unfortunate mule deer fawn, among other, smaller prey.

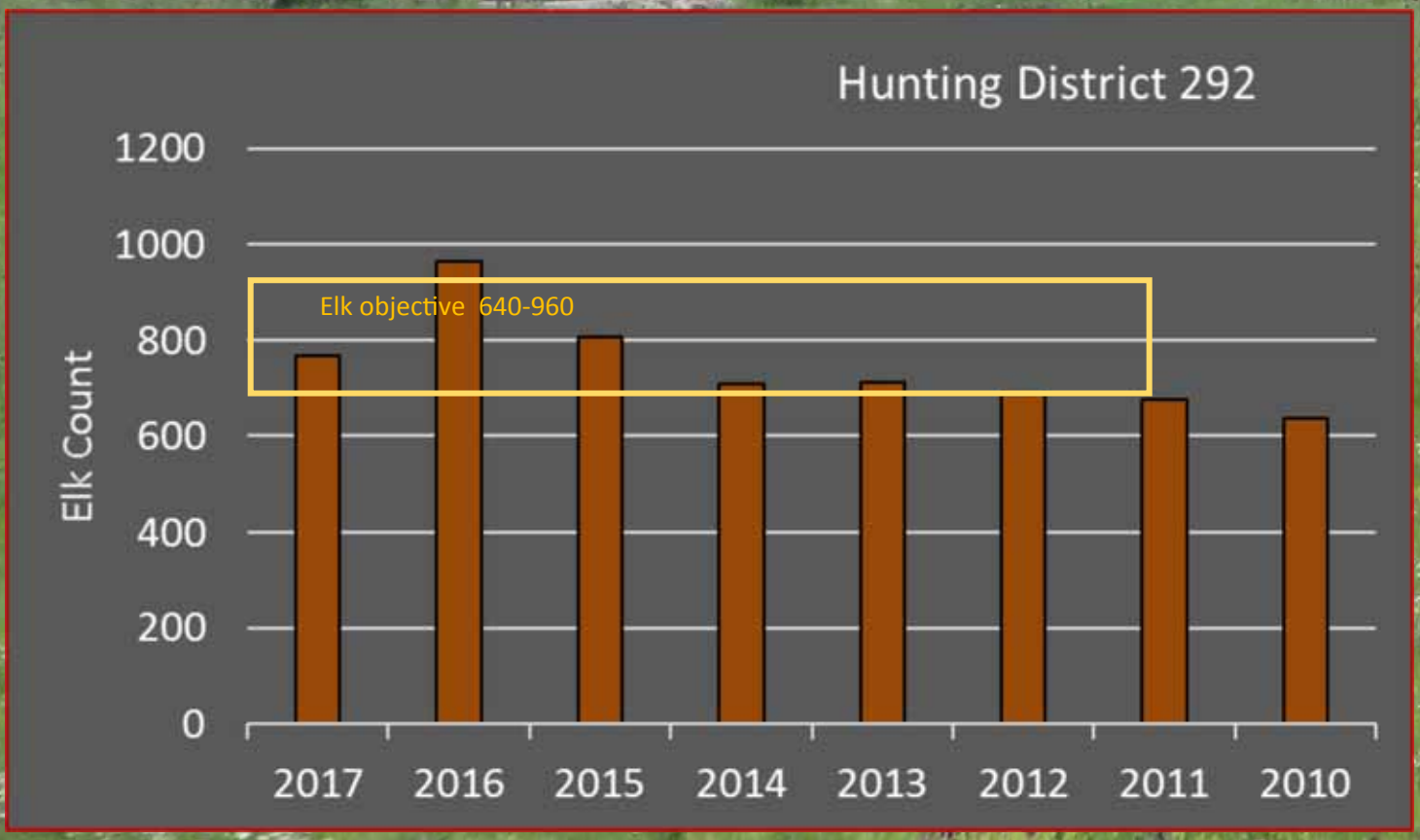
As is so often the case, the elk count in HD 291 varies, depending on whether these elk happen to be here or in HD 217 or HD 298 at the time of the survey.



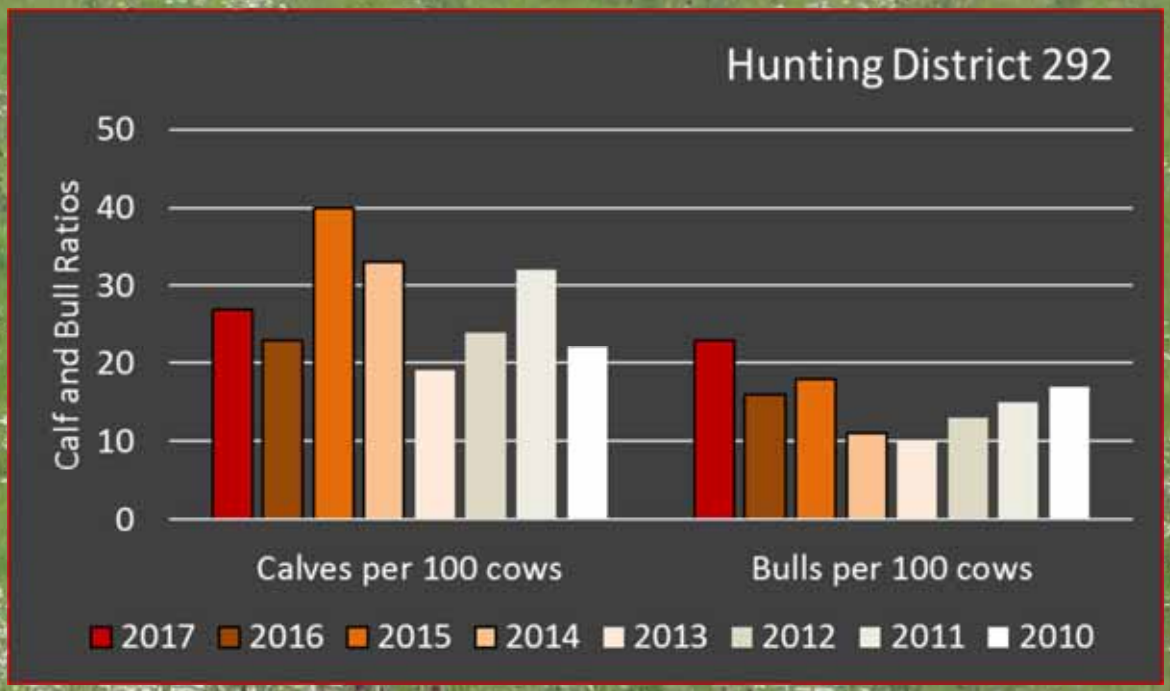
Blackfoot 2017

HD 292

The count of 766 elk for Hunting District 292 in 2017 was down slightly from 2016 and solidly within the objective range. The ratios of calves per hundred cows was about average for HD 292, and the good bull ratio was a pleasant surprise.

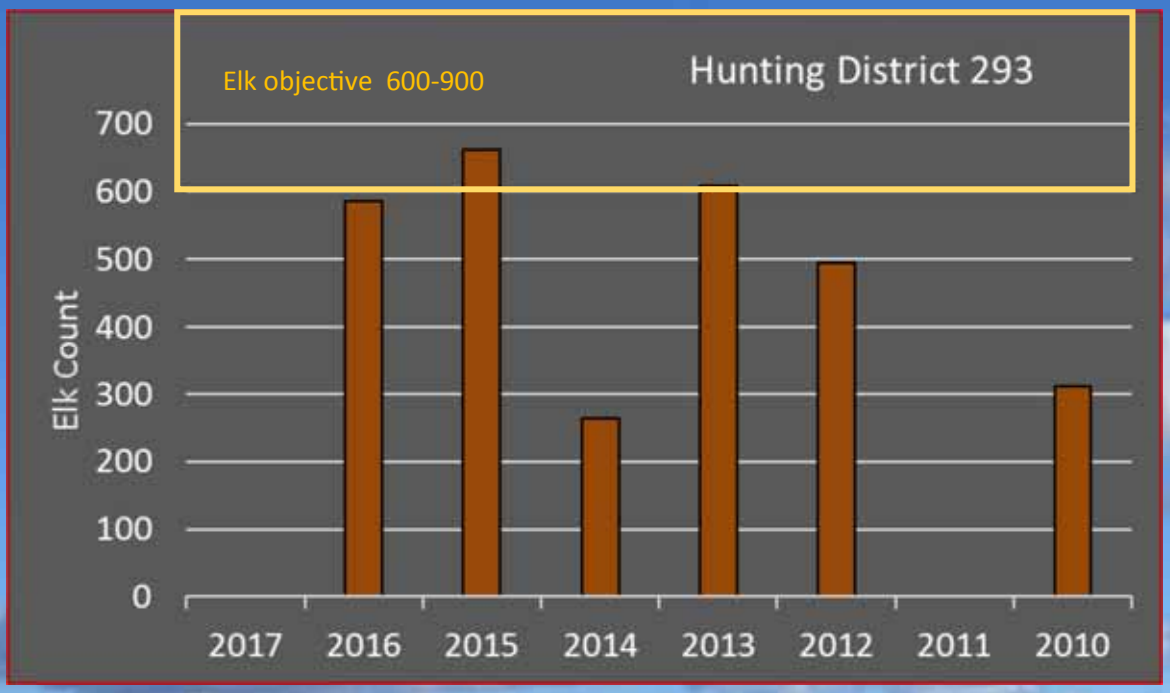


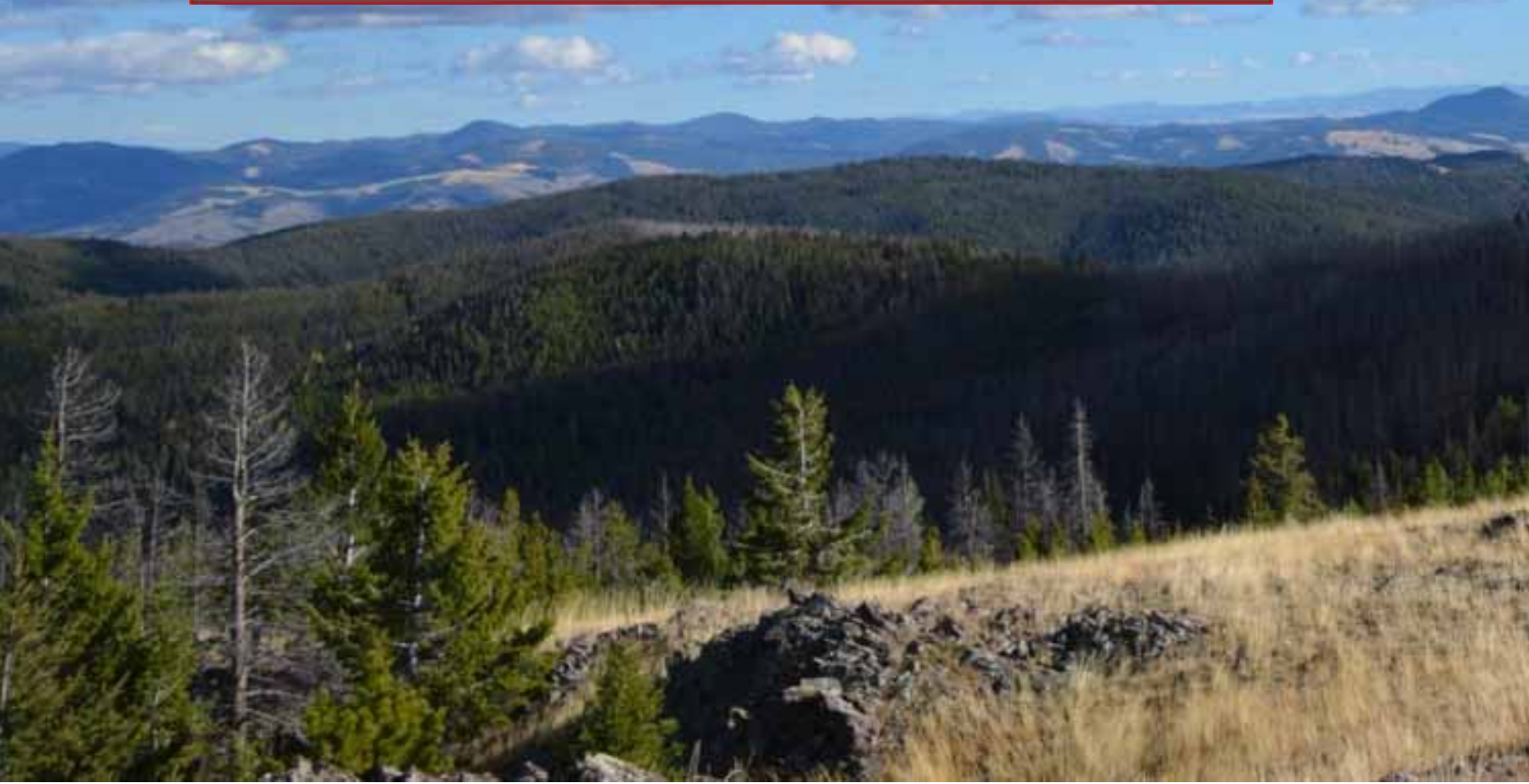
This photograph shows an uncommon observation within a common scene along Highway 200. As often as we've seen elk in this field over the years, we've only caught them drinking from the pivot this one time.



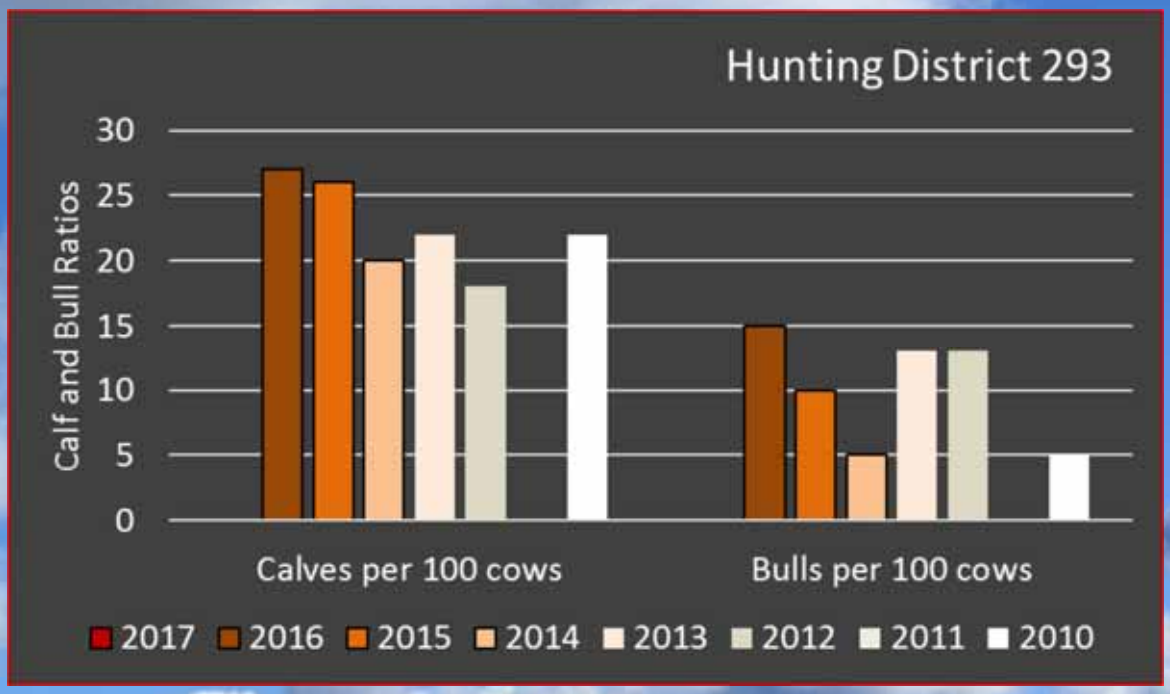
Blackfoot 2017

HD 293





Elk surveys were not completed in Hunting District 293 this year, due to the short green-up period brought about by a late spring. Simply put, we ran out of time before the elk dispersed. HD 293 is a difficult area to count elk and as a result, we see quite a bit of variability in the annual counts.



This photograph was snapped from the top of Elevation Mountain and shows the general lay of the land in north and western 293, out on the horizon.