



# Region 2 Technical Bulletin

# 2024 State of the Elk

SPECIAL REPORT

JULY 2024

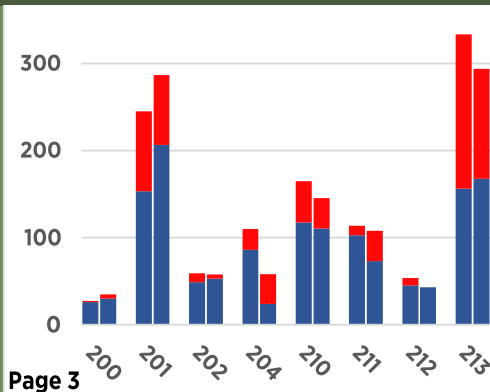


Photo by Kirstie Yeager

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## The state of our elk is...

...in the eye of the beholder (or so it seems).

The “health” of an elk herd can be measured many ways, be dependent on many things, and vary according to which measurement you’re interested in.

How many are there? How many calves were recruited into the population (i.e., survived their first year)? How does the population compare to the goals (formerly known as “objectives”) as outlined in the Elk Management Plan? These are things area biologists assess every year through annual monitoring, usually through aerial (fixed-wing or helicopter) census surveys in which we fly the same areas and obtain minimum counts. These counts represent significant effort on the part of biologists and make up the meat of this report.

But that’s not all there is to the story. We also measure things like game damage complaints from elk on standing and stored crops throughout the year,

which can give us insight into where problematic elk herds concentrate and how many elk landowners in a given area will tolerate.

Harvest is another tool biologists use to assess the health of elk populations. How many hunters went after elk in an area? How successful were they? How many antlerless elk were harvested, and is this too many or too few to meet population goals? Hunter check stations can give biologists additional insight into the health of elk populations, through evaluating trends in the ages of harvested elk (as assessed through tooth wear and replacement), body condition, antler quality for males, and more specific information on locations and time periods where elk harvest may be more concentrated.

Then there are things that are downright difficult to measure. How many target animals were actually available to hunters during the season, and not holed

up on inaccessible private land? How much did the ruggedness of an area influence hunter success? To what extent did the weather affect elk movements and availability? To what degree did hunter behavior play a role, i.e., hunters who could have taken a cow with their general license but really, really wanted a bull instead? How much effort did hunters put in?

At check stations, one unsuccessful hunter may be furious that he never saw a single elk in five days of hunting, and the very next person in line hunted the same area during the same time and has a beautiful bull in the truck bed to show for it. What was the difference between them? Skill? Effort? Or just plain luck?

We biologists do our best to manage elk populations at sustainable levels and with private landowners—who, like it or not, often supply most of the elk’s food during the winter, as well as other times of the year—in mind. We try to offer plenty of hunting opportunities while balancing both elk and hunter populations and behavior (including social issues like hunter crowding), offering additional opportunities (like B-licenses) when possible, and imposing restrictions

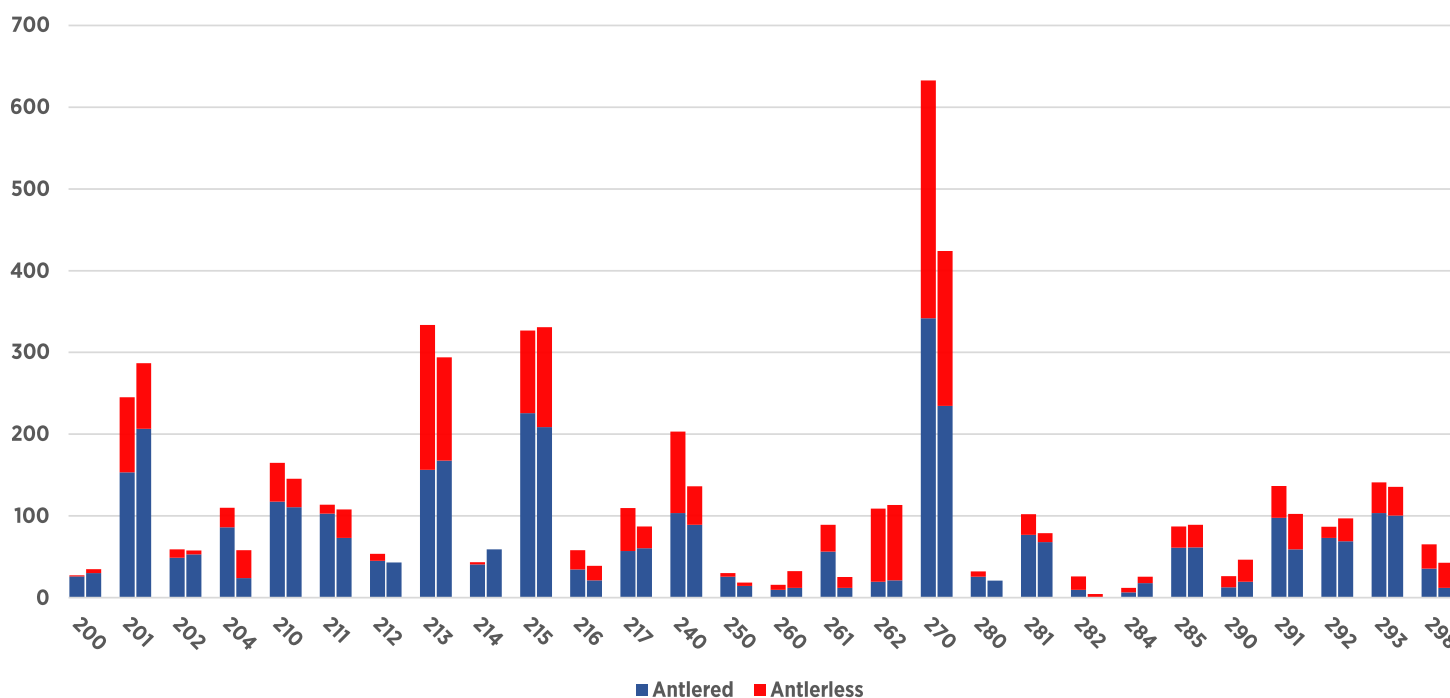
when necessary, all while doing our best not to unnecessarily complicate the regulations.

While the data included in this report represents our best efforts at assessing the State of the Elk, it is by no means all-inclusive. What’s missing is the data from YOU, the hunters, which can be equally if not more useful to biologists than the hard numbers obtained through flights and harvest surveys. That’s one of the reasons we publish this report—to get you to think about how well our data jives with what you’re seeing in the fall, and to encourage you to speak with the biologist for the area you hunt.

Not every issue with elk populations or management can be easily addressed by these conversations. But our hope is that we can continue to learn from each other and work together to ensure that the state of our elk is, in fact, strong—now and into the future.



2022 and 2023 Elk Harvest, Region 2



Above: Comparison of 2022 and 2023 elk harvest per hunting district (HD) in Region 2. Datasets are paired per HD, showing the two years of data side-by-side. The total height of the bars represents all elk harvest, split between antlered (blue bars) and antlerless (red bars). HD270 takes the cake for total elk harvest. This and most other HDs saw a drop in elk harvest in 2023 compared to 2022, likely aided by mild weather conditions during the rifle season. Top of Page 2: Researchers from the University of Montana take antler measurements from a harvested bull elk at the Darby Check Station as part of a project examining the evolution of antlers as weapons and/or mating signals.

# Lower Clark Fork

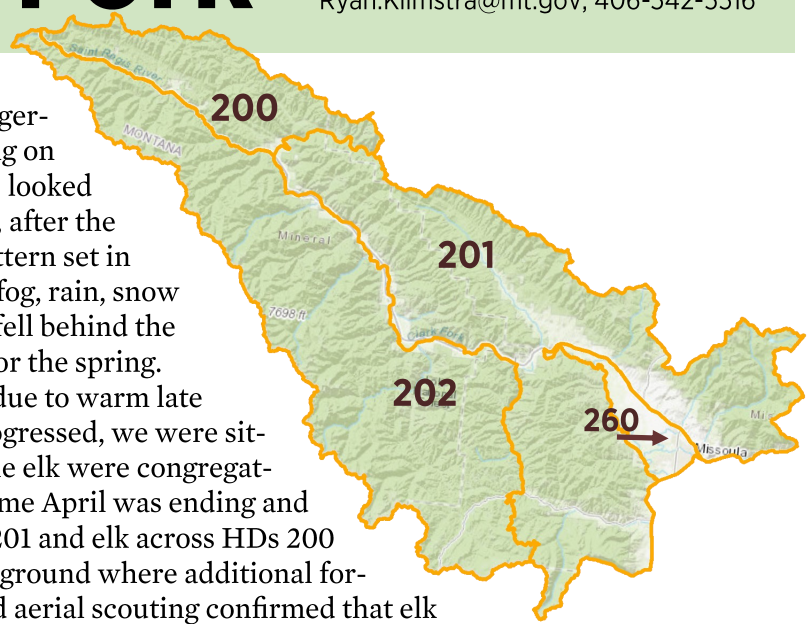
**Ryan Klimstra**

Ryan.Klimstra@mt.gov; 406-542-5516

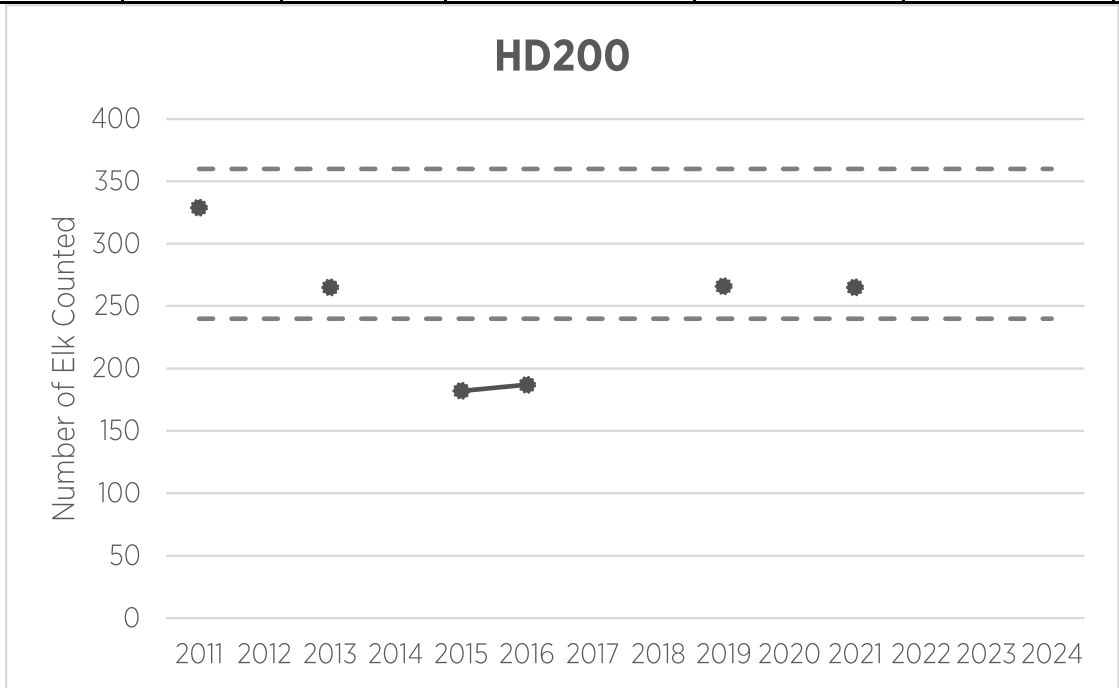
Unlike last year when we were not able to get started until after the first week of April due to lingering winter conditions, this year we began surveying on the very first day of April. Weather and conditions looked very favorable for a great survey season. However, after the first week of April a cooler and wetter weather pattern set in which prevented us from flying many days due to fog, rain, snow showers, and heavy winds. As a result we quickly fell behind the pace needed to complete all the surveys planned for the spring.

Unfortunately, green-up had a jump start due to warm late March and early April conditions, and as April progressed, we were sitting on the ground many days due to weather while elk were congregating in their preferred green-up locations. By the time April was ending and May was beginning we were just completing HD 201 and elk across HDs 200 and 202 were already beginning to head to higher ground where additional forage/green-up was becoming available. Ground and aerial scouting confirmed that elk in HDs 200 and 202 were no longer drawn to the early green-up locations at lower elevations with high visibility. Elk were quickly scattering into higher ground, and we made the decision to end our survey flights.

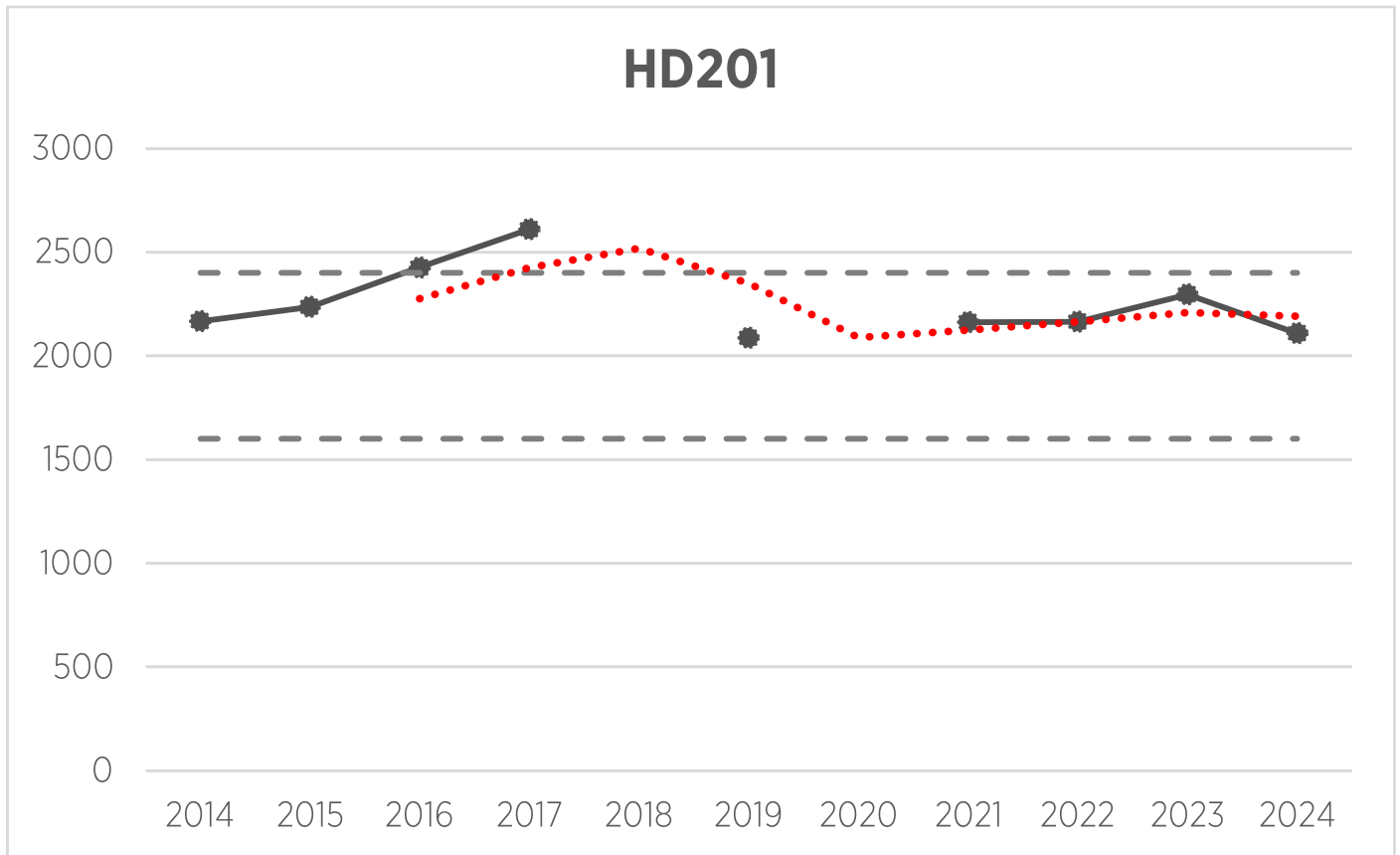
We will prioritize un-surveyed units next year and hope for better weather. While we didn't get our surveys completed, we did hear from many members of the public that 10-month-old elk (calves/short-yearlings) were abundant. (For chart below, NS=not surveyed. **Population goals are from the 2023 Elk Management Plan, with status based on the three-year average count.**)

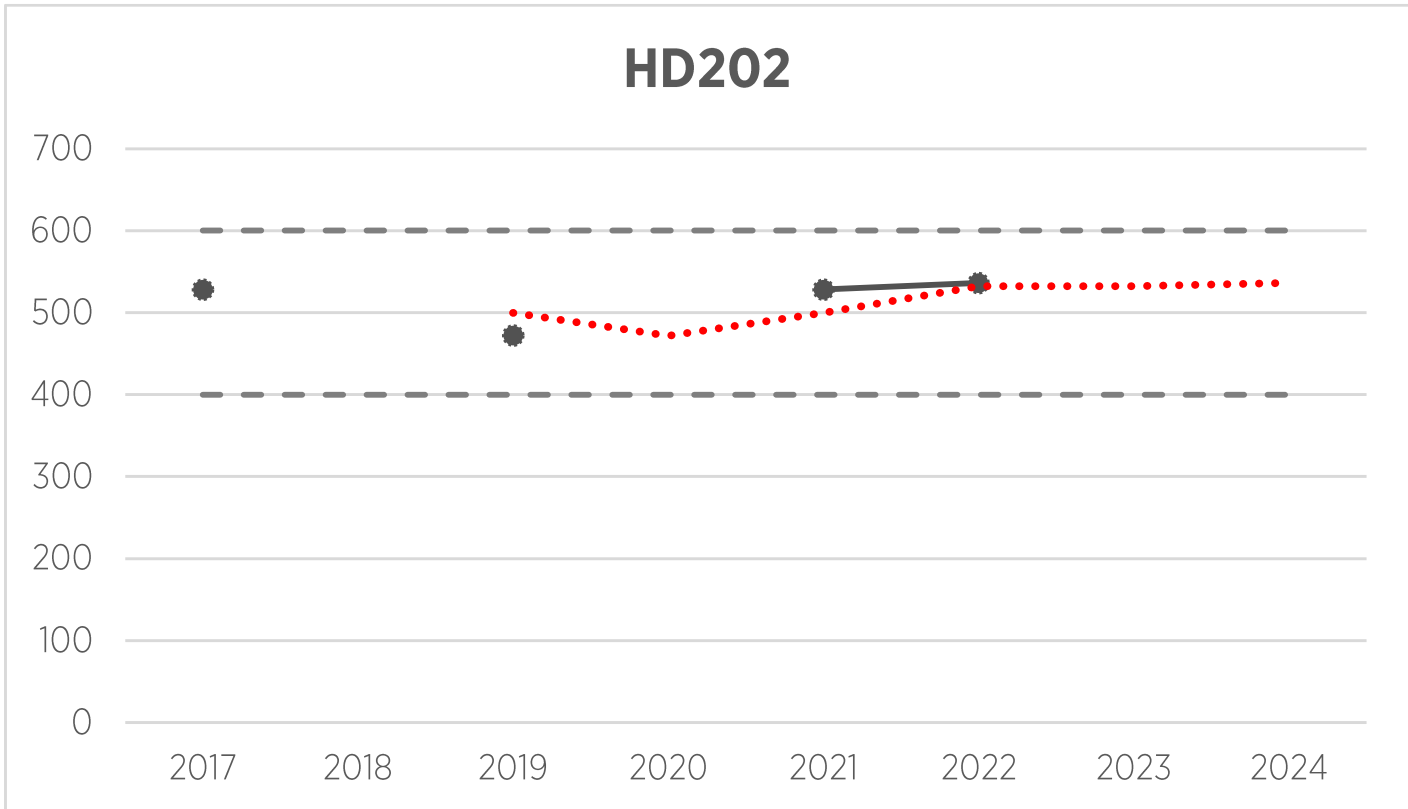


HD	2024 Count	Calf:cow	Bull:cow	Most recent previous count	3-year avg	Goal	Status
200	NS	NS	NS	265 (2021)	NA	240-360	Within
201	2109	0.23	0.14	2297 (2023)	2190	1600-2400	Within
202	NS	NS	NS	536 (2022)	532	400-600	Within



HD201 underwent significant boundary changes in 2022, including combining several HDs and taking the top portion (Carlton Creek—Lolo drainage) of HD240. Below: Group of elk in HD201. Red dotted line indicates three-year average count.





As per the 2023 Elk Management Plan, HD202 includes 3 survey units (N. Fork Fish - Cyr, Cougar - Quartz, & Cold - Trout). HD202 was not flown in 2024. Top: A group of bull elk in HD201.

# Upper Clark Fork

**Kirstie Yeager**

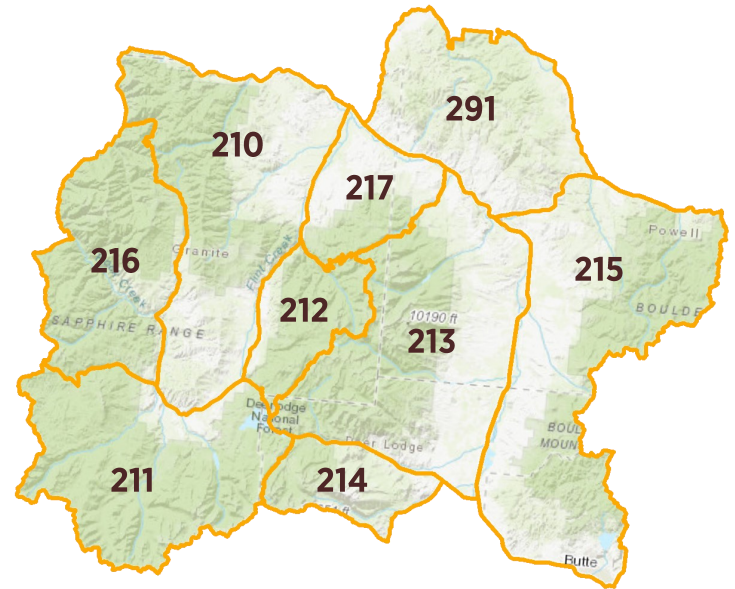
Kirstie.Yeager@mt.gov; 406-270-6998

All hunting districts (HDs) in the Upper Clark Fork (UCF) were aerially surveyed in 2024. All surveys were post-hunt, winter surveys. Winter conditions were mild with little snow, making survey conditions suboptimal with reduced sightability. Despite the mild conditions, elk were observed on traditional winter range. It is likely that we found most of the cows, calves, and yearlings but may have missed a group in the southern end of HD215 near Butte. Bulls are always difficult to find as they tend to remain in the timber in smaller bachelor groups, biasing bull to cow ratios low. However, winter surveys are typically pre-antler shed, so those that are found are easily identifiable.

Elk populations in the UCF are relatively stable. The 2024 counts for HDs 214, 215, 217, and 291 were within the goal range. The count for the northern end of HD210 was slightly below population goals at 357 (range 400-600). HD213 was above the goal range at 2,116 (range 920-1,380) as was the southern end of the Philipsburg Valley with a count of 2,245 (range 1,040-1,560).

Surveys in the Philipsburg Valley were modified in 2023. Elk from multiple HDs (210, 211, 212, & 216) congregate on winter range in the southern end of the valley. At this time of year, boundaries are somewhat arbitrary in that elk may be on one side of the line one day and on the other the next. As a result, all HDs here were flown together over multiple days (March 8-10) and elk numbers were combined into one population count.

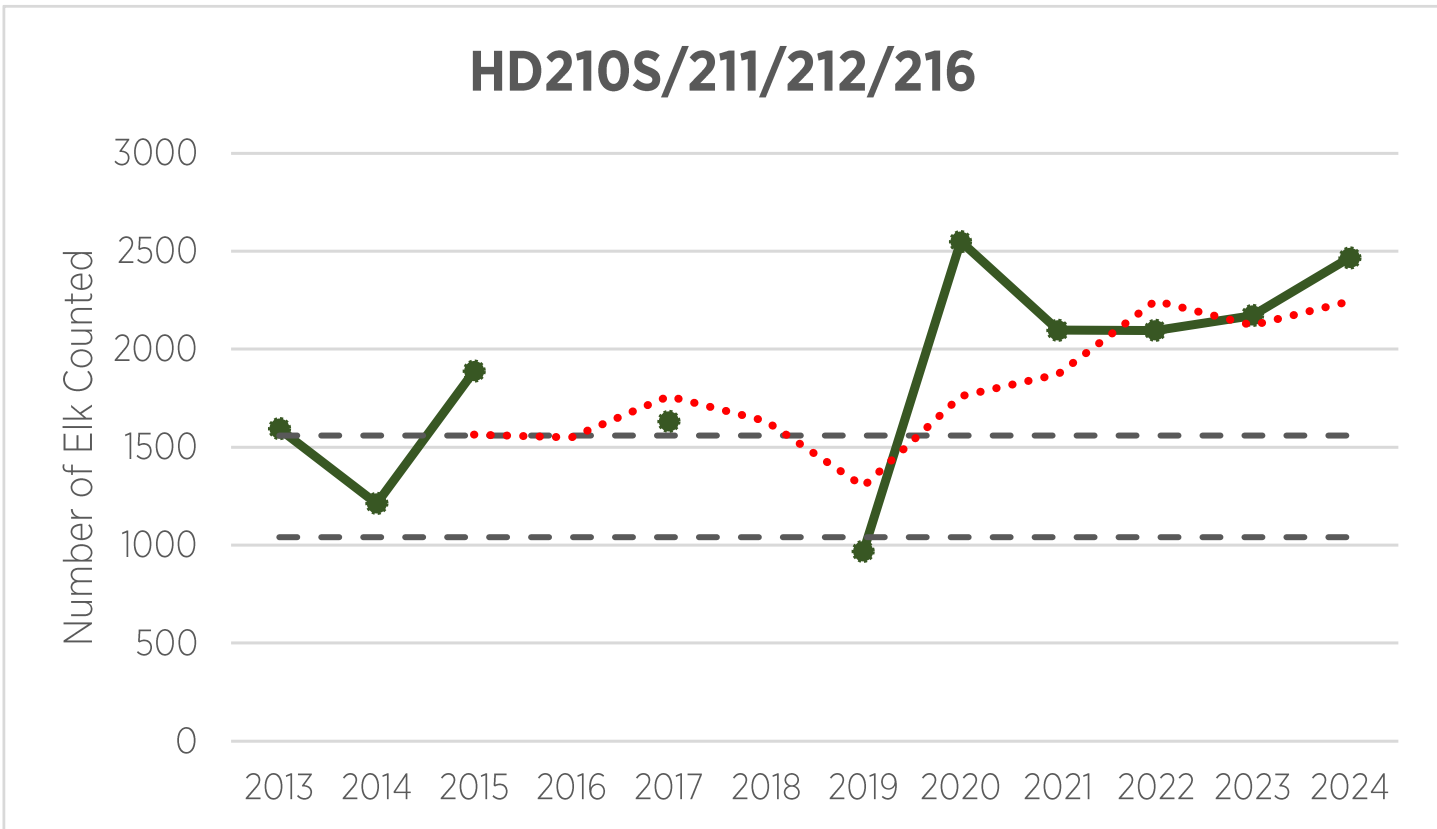
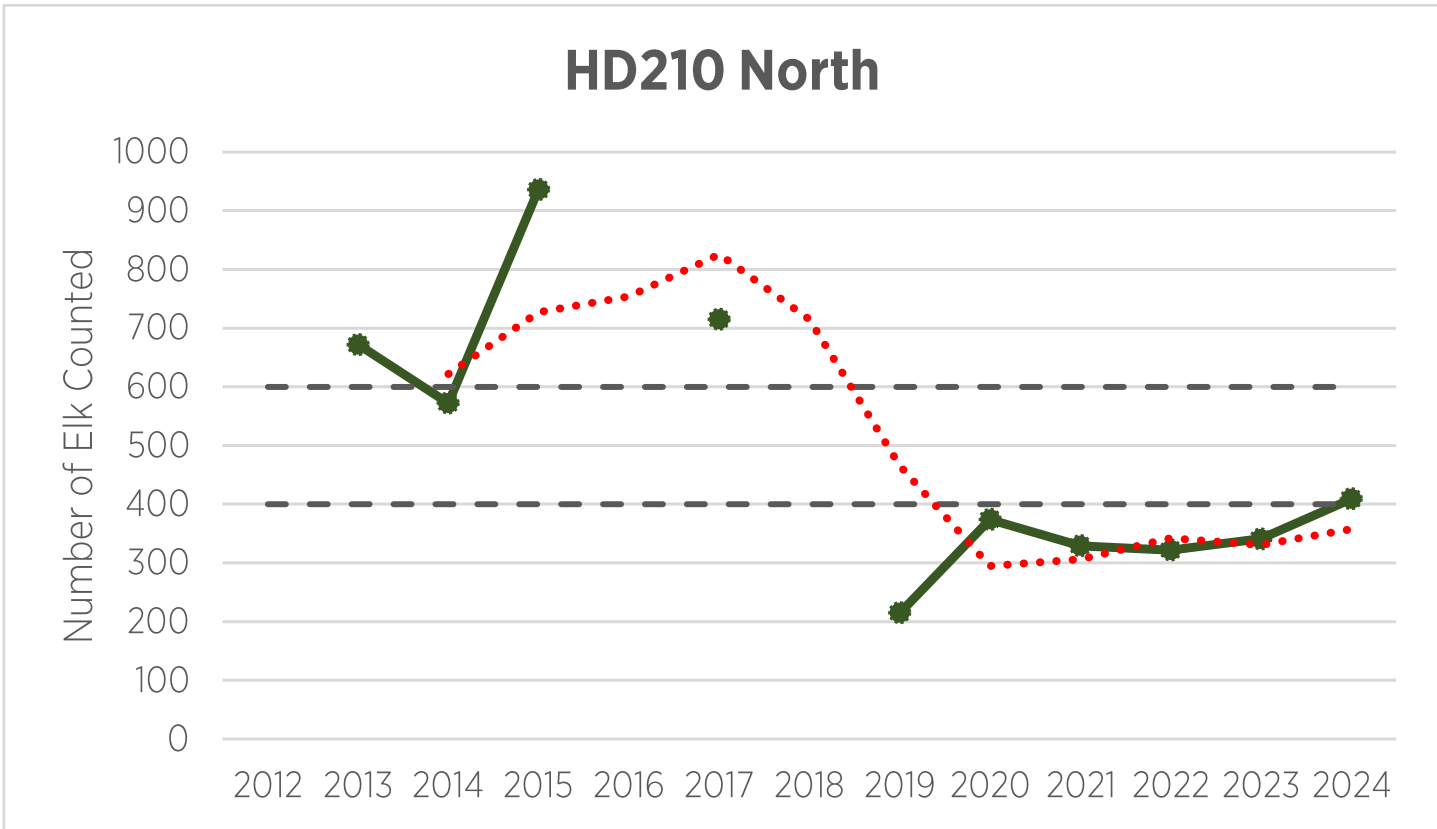
Sex and age ratios were also obtained. All sex ratio (bull to cow) goals in the UCF were set at  $\geq 10$  bulls per 100 cows in the 2023 Elk Management Plan. The three-year average observed sex ratios for all HDs were within goals except for HD291, which was slightly under at 9.1. All age ratio (calf to cow) goals in the UCF were set at  $\geq 20$  calves per 100 cows in the new plan. The three-year average observed age ratios for all HDs were within goals except for HD214, which was slightly lower at 18.3. (Note that table below shows only current year's age and sex ratios, not the 3-year averages. Contact Kirstie for long-term data.)



HD	2024 Count	Calf:cow	Bull:cow	2023 count	3-year avg	Goal	Status
210N	409	0.47	0.11	341	357	400-600	Below
210S/211/ 212/216	2466	0.35	0.12	2172	2245	1040-1560	Above
213	1833	0.58	0.12	2424	2043	920-1380	Above
214	198	0.35	0.17	NA	184	160-240	Within
215	1451	0.53	0.09	1958	1706	1360-2040	Within
217	800	0.40	0.21	562	714	480-720	Within
291	962	0.49	0.09	633	750	480-720	Within

Population goals given are for the 2023 Elk Management Plan. Goal status is based on the 3-year average.

Elk in the northern end of HD210 are relatively isolated from the elk that winter in the southern end. As a result, these animals are now managed independently from each other. Red dotted line represents three-year average count.



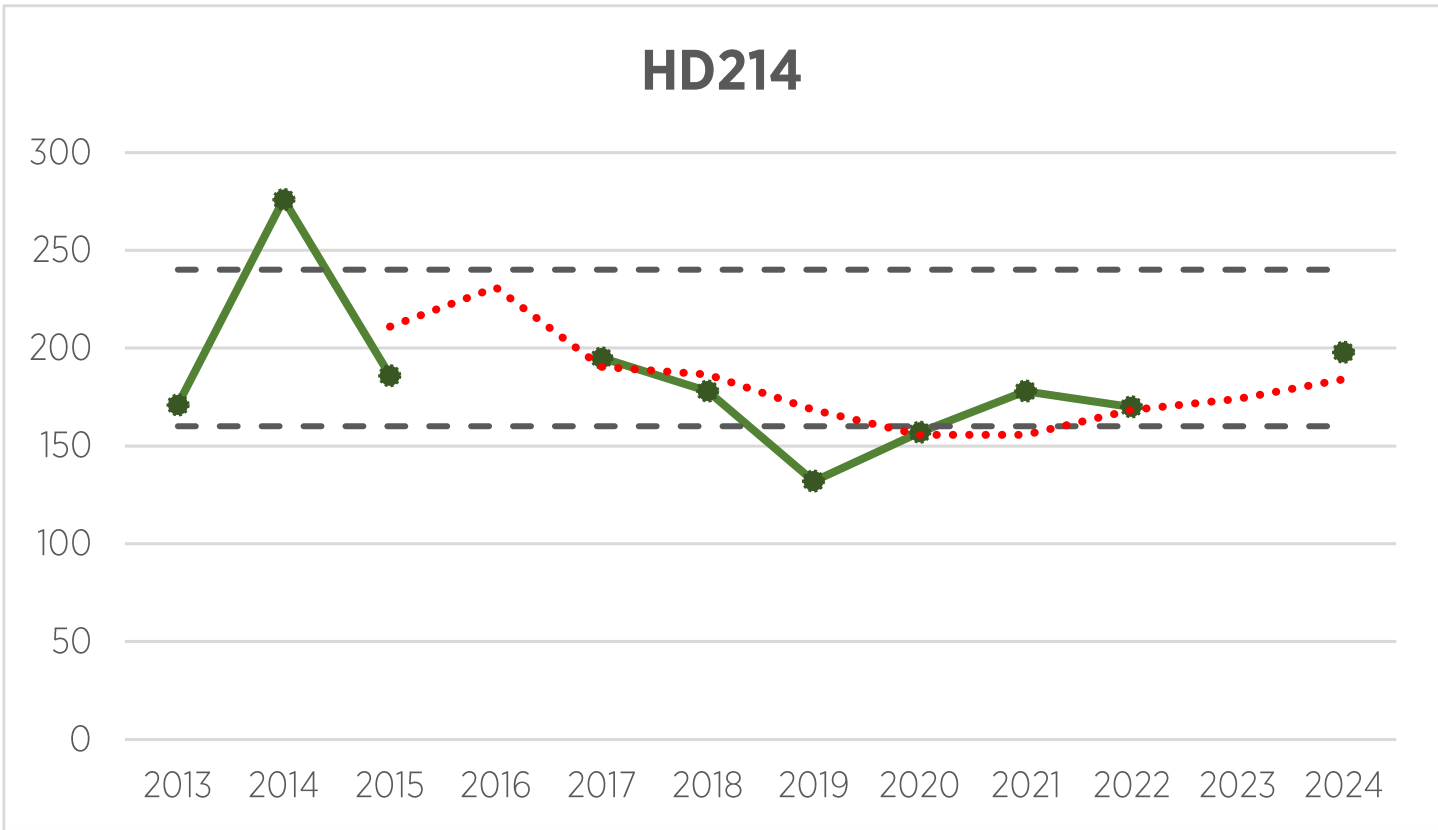
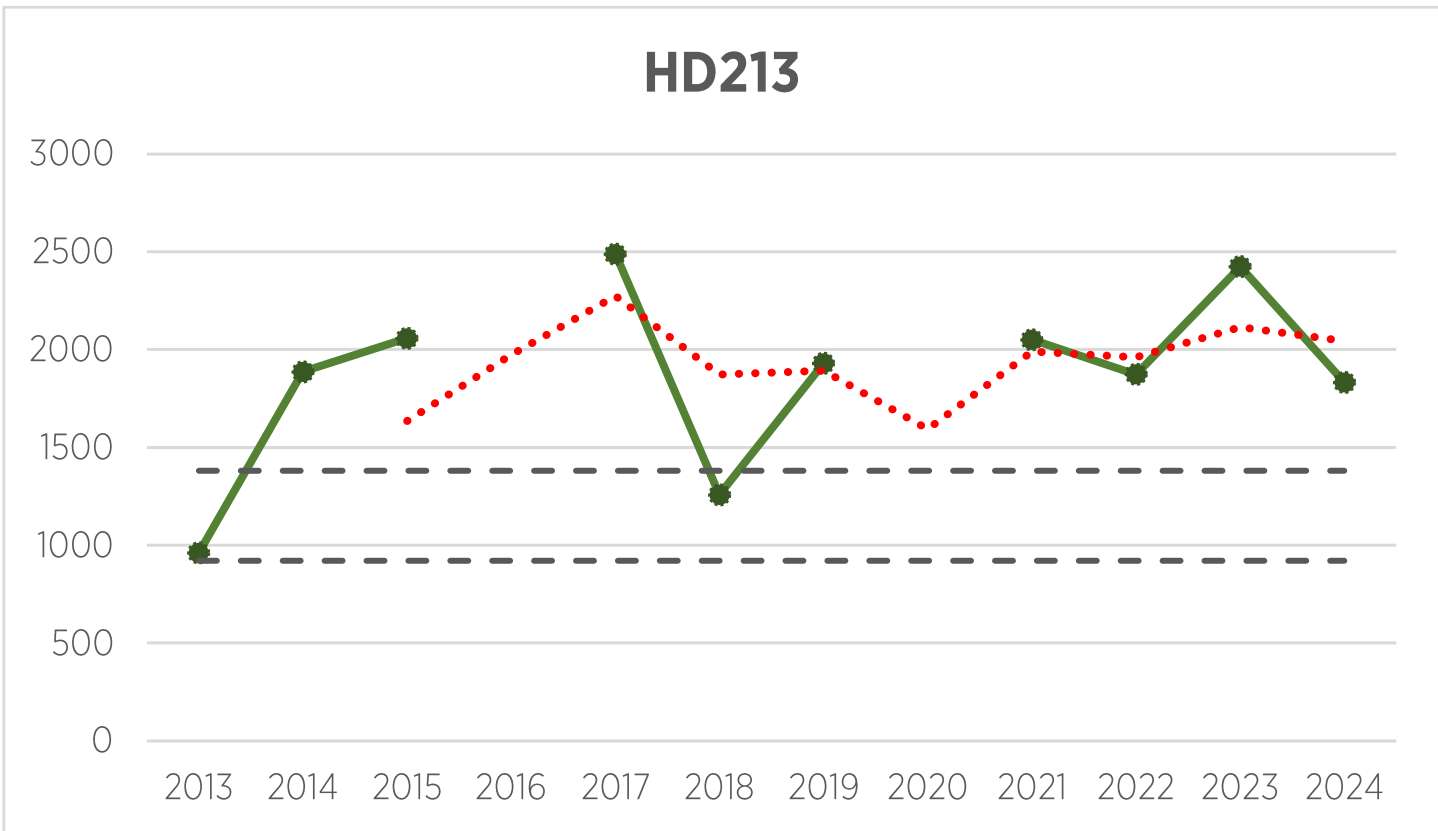
Elk from multiple HDs congregate on winter range in the southern end of the Philipsburg Valley crossing district boundaries. Therefore, all elk in this area were included in a single survey.

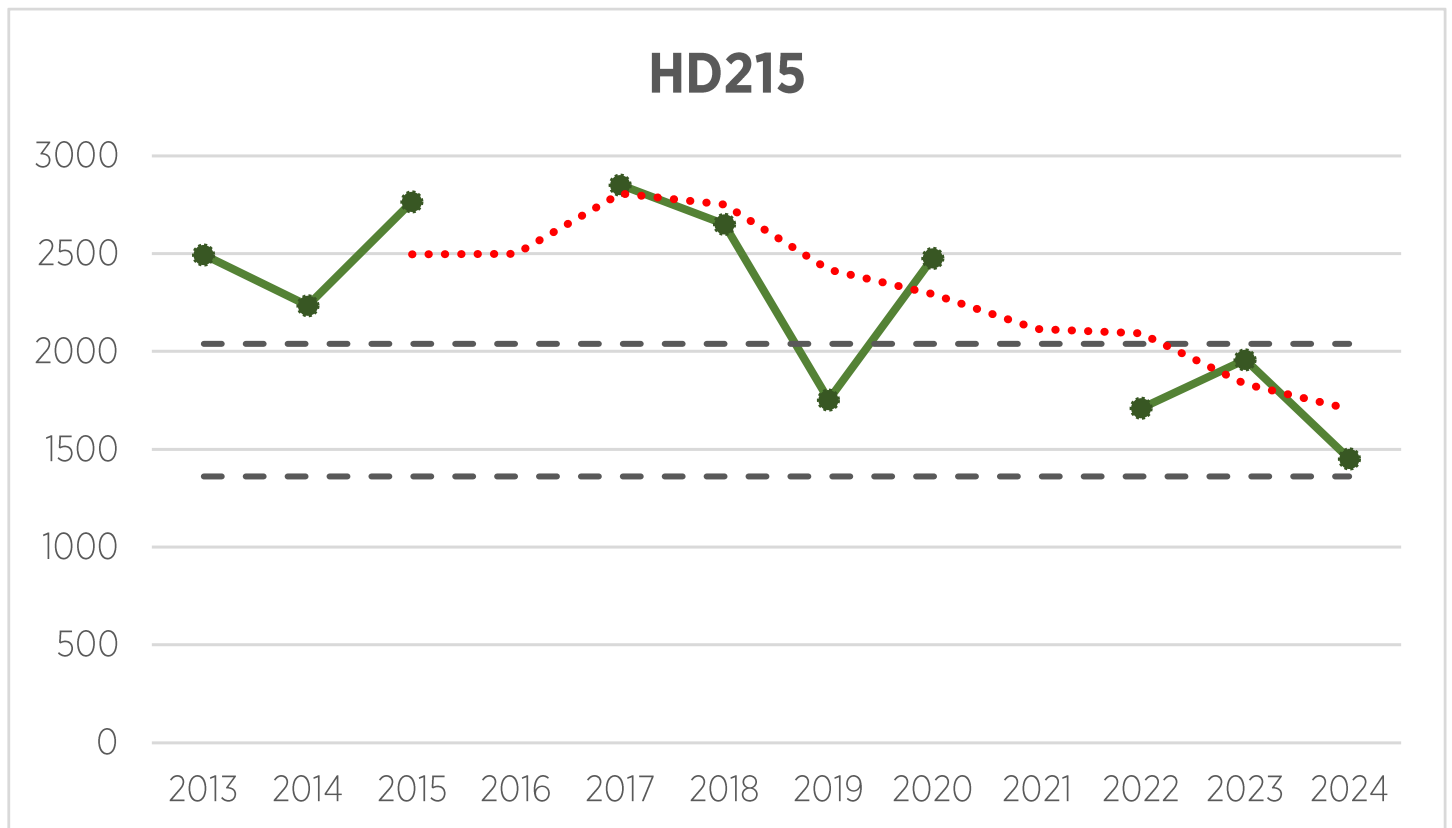


Top: Several groups of elk were observed in the southern end of the Philipsburg Valley, including this group comprised mainly of cows and calves. Bottom: Non-target species are sometimes observed during surveys, such as this mountain lion.



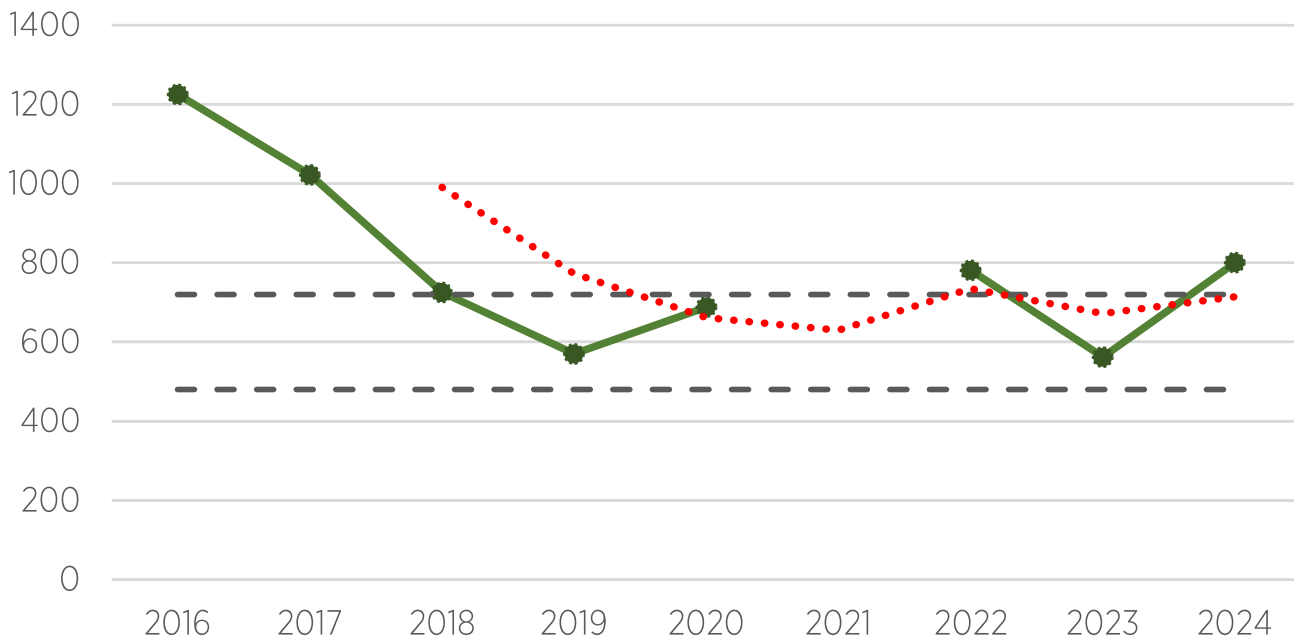
Elk numbers in the northern end of HD213 were slightly higher last year possibly due to movement across the HD217 boundary.



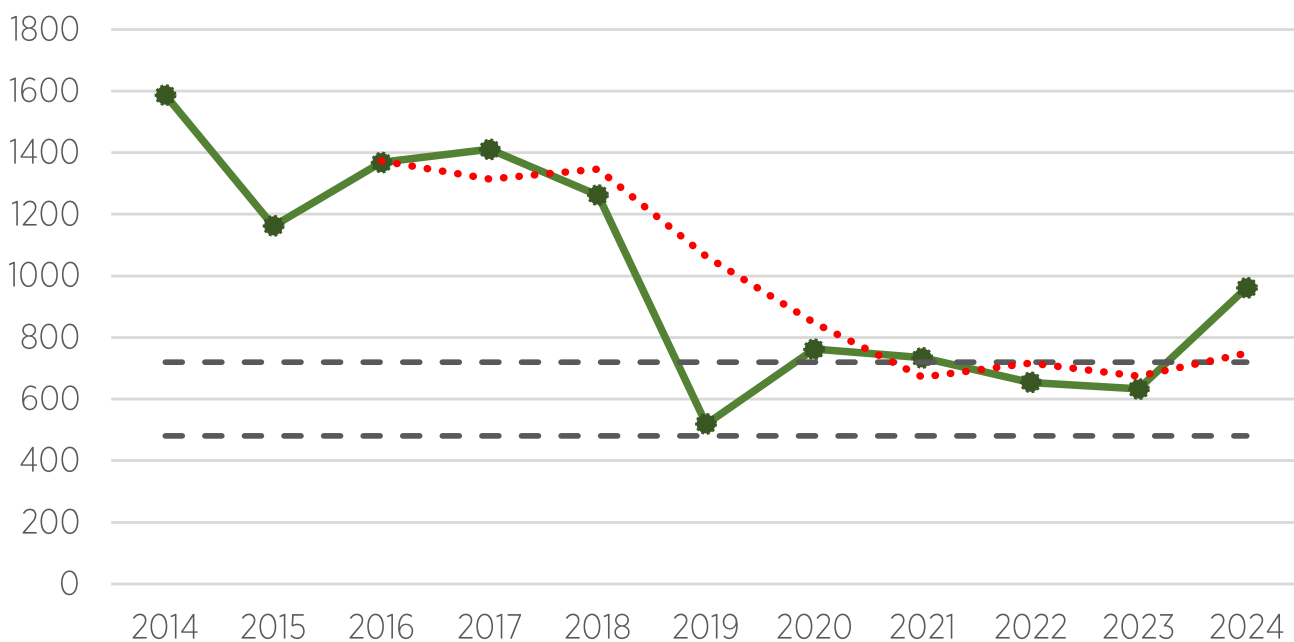


As in previous years, most of the elk in HD215 (1,161) were observed in a single group on Spotted Dog WMA (pictured above). We think we missed a group on the southern end around Butte.

### HD217



### HD291



# Bitterroot

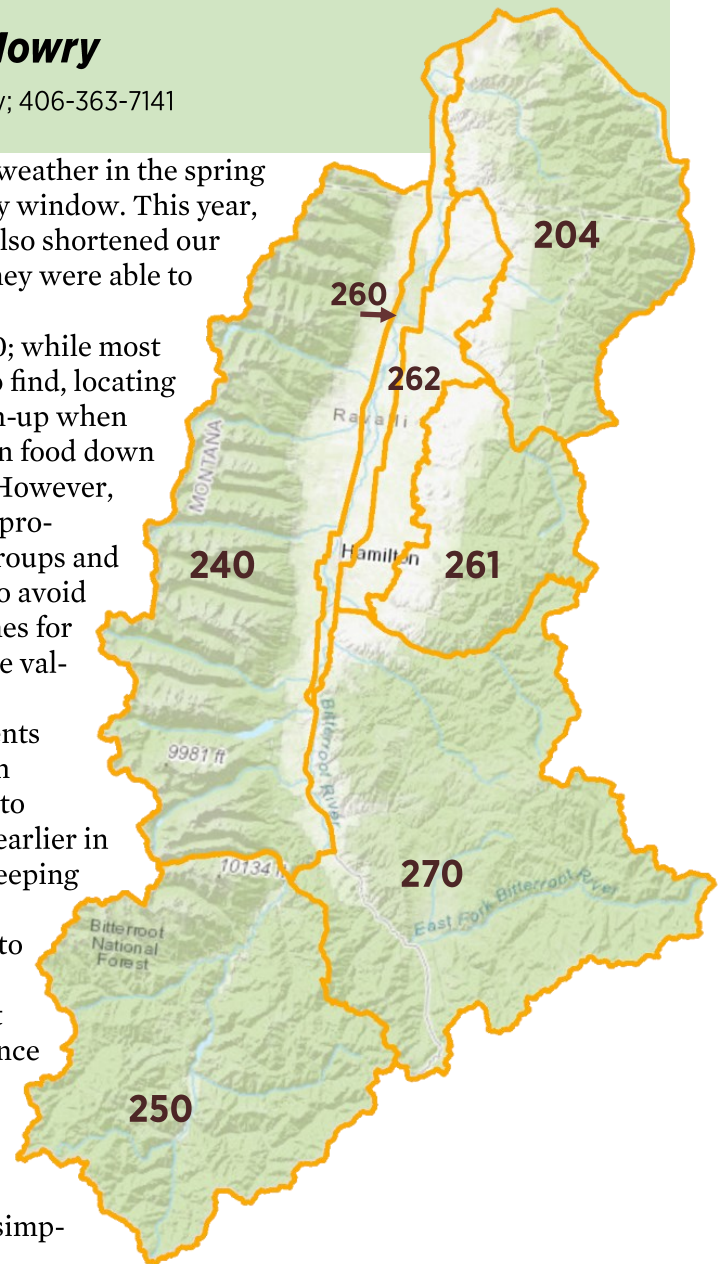
**Rebecca Mowry**

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You may remember that last year we had cold, rainy weather in the spring that delayed green-up substantially and shortened our survey window. This year, we had the opposite problem: green-up was early! And this also shortened our survey window, as we had less time to catch the elk before they were able to move and scatter into the high country.

Mainly this was a problem with bulls in HDs 250/270; while most of the large cow/calf groups were out in the open and easy to find, locating bulls became a challenge. We try to catch them at early green-up when they're near the cow groups, capitalizing on the earliest green food down low. That's what happened in HDs 204/261/240, in March. However, when we got to HDs 250/270 in April, green-up had already progressed significantly. There were fewer bulls with the cow groups and we had to put in extra effort to find them up higher. We try to avoid this situation whenever possible as it adds hours to flight times for a low return; we simply can't survey all the timber around the valley and hope to pick out all the bulls in their small groups.

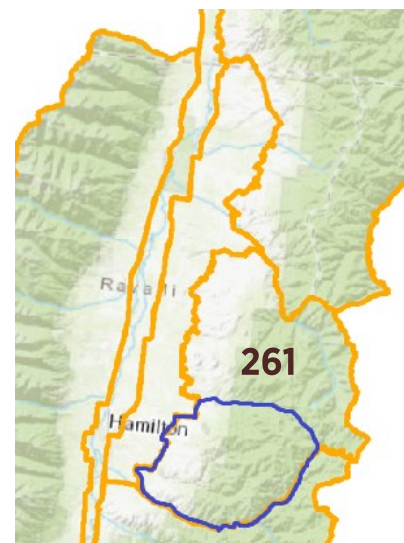
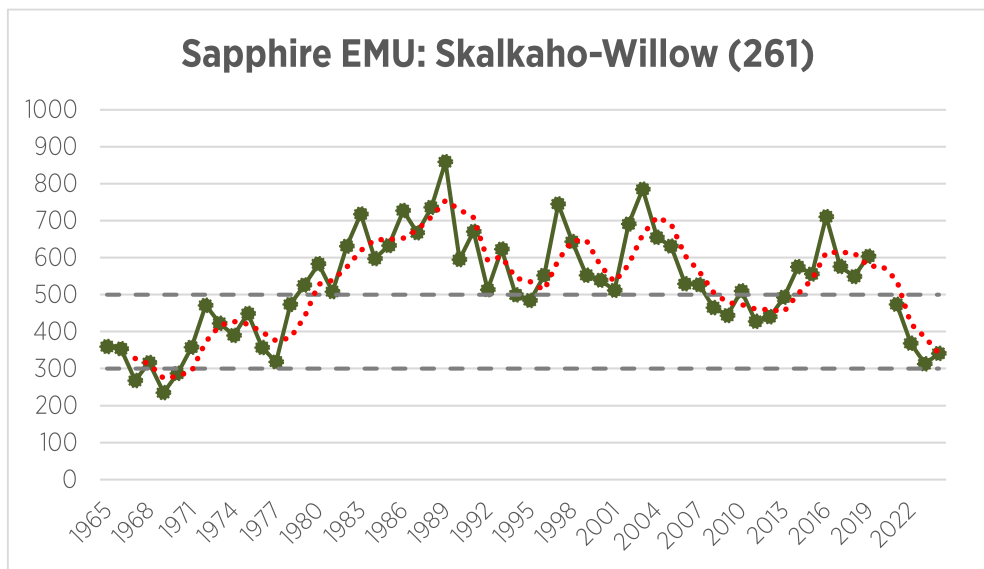
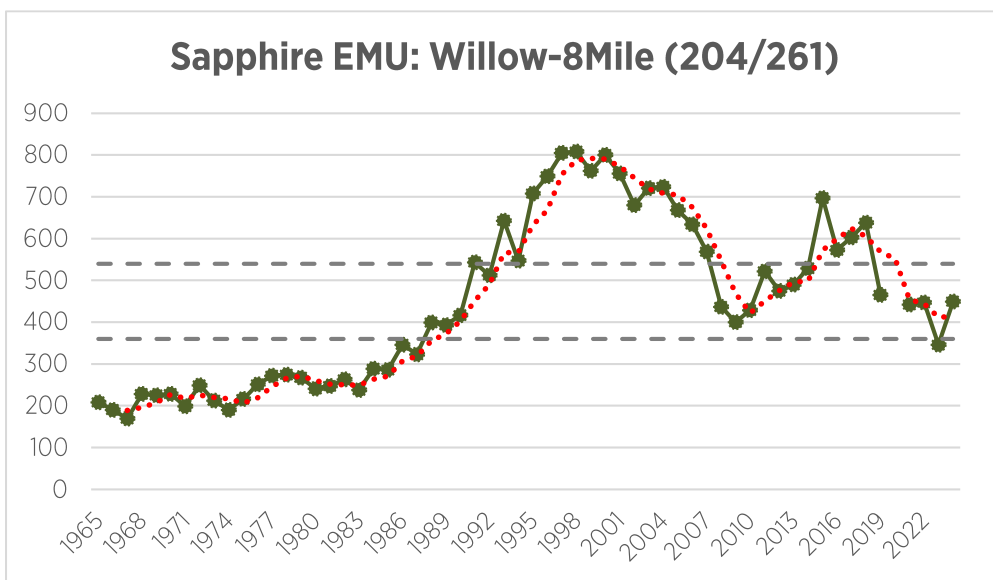
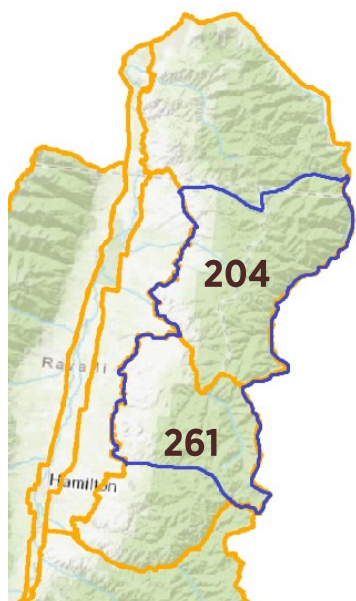
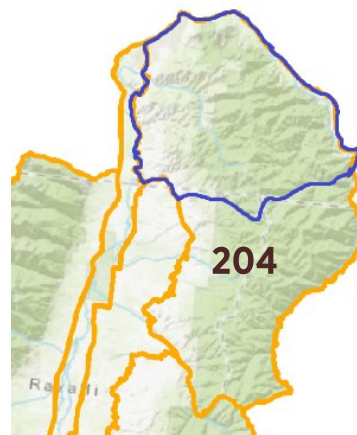
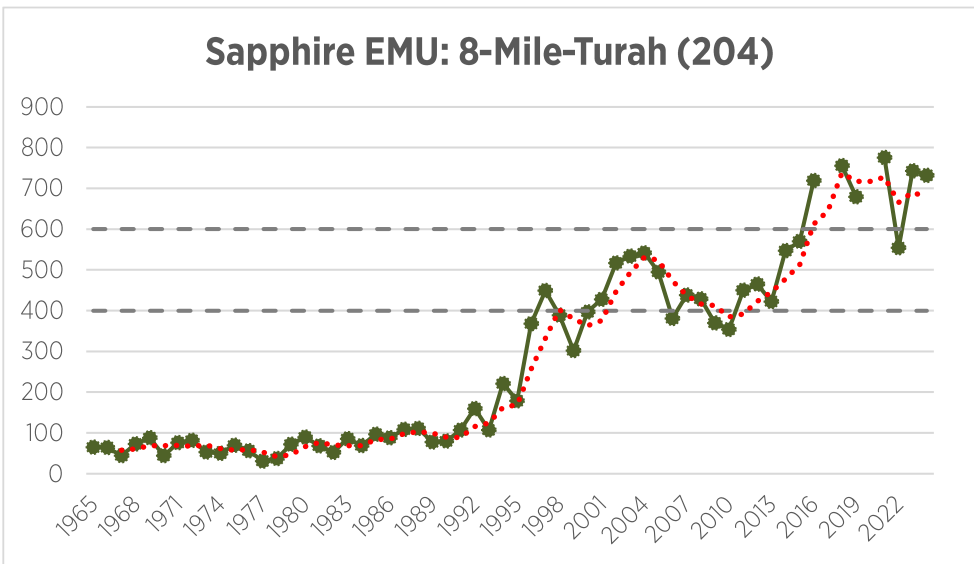
There were two specific examples of the elk movements being much earlier/more unpredictable than normal: First, in HD270, most elk had already moved off the CB Ranch and into French Basin by the time we surveyed (which was ~2 weeks earlier in April than last year). Last year, we counted 1735 elk in the Sleeping Child-Rye segment, while this year we counted only 1160 elk there. Our overall count was down by almost 400 compared to last year. There's a good chance those elk were just more scattered or already in the higher elevations where we didn't survey—or, because we had such a mild winter, there's a chance they never migrated to the Bitterroot at all! Second, in HD250, our bull ratio was lower than we expected...but by the time we got there, we were finding cow/calf groups almost up to the Idaho border in Hughes Creek. My guess is that bulls were scattered all through the timber, and there's simply no way we can put in the effort to search it all thoroughly.



HD	2024 Count	Calf:cow	Bull:cow	2023 count	3-year avg	Goal	Status
204-North	732	0.26	0.22	743	676	400-600	Above
204/261 Willow-8Mile	449	0.30	0.42	346	414	360-540	Within
261-South	341	0.18	0.48	313	341	300-500	Within
240	727	0.22	0.16	837	741	600-900	Within
250	1034	0.27	0.18	NA	892	800-1200	Within
260	223	0.23	0.08	105	178	0-100	Above
270	4167	0.26	0.14	4554	4369	3600-4400	Within

Population goals given are for the 2023 Elk Management Plan. HDs 204/261 combined into "Sapphire Elk Management Unit (EMU)" with different goals for 204-North (Eight Mile to Turah), Eight Mile to Willow, and 261-South (Willow-Skalkaho). Goal status is based on the 3-year average.

Dashed lines represent upper and lower population goal range for the 2023 Elk Management Plan. HD262, adjacent to HDs 204/261, does not have a population goal. Elk observed in HD262 are included in counts for the adjacent HD. Red dotted line indicates three-year average count.

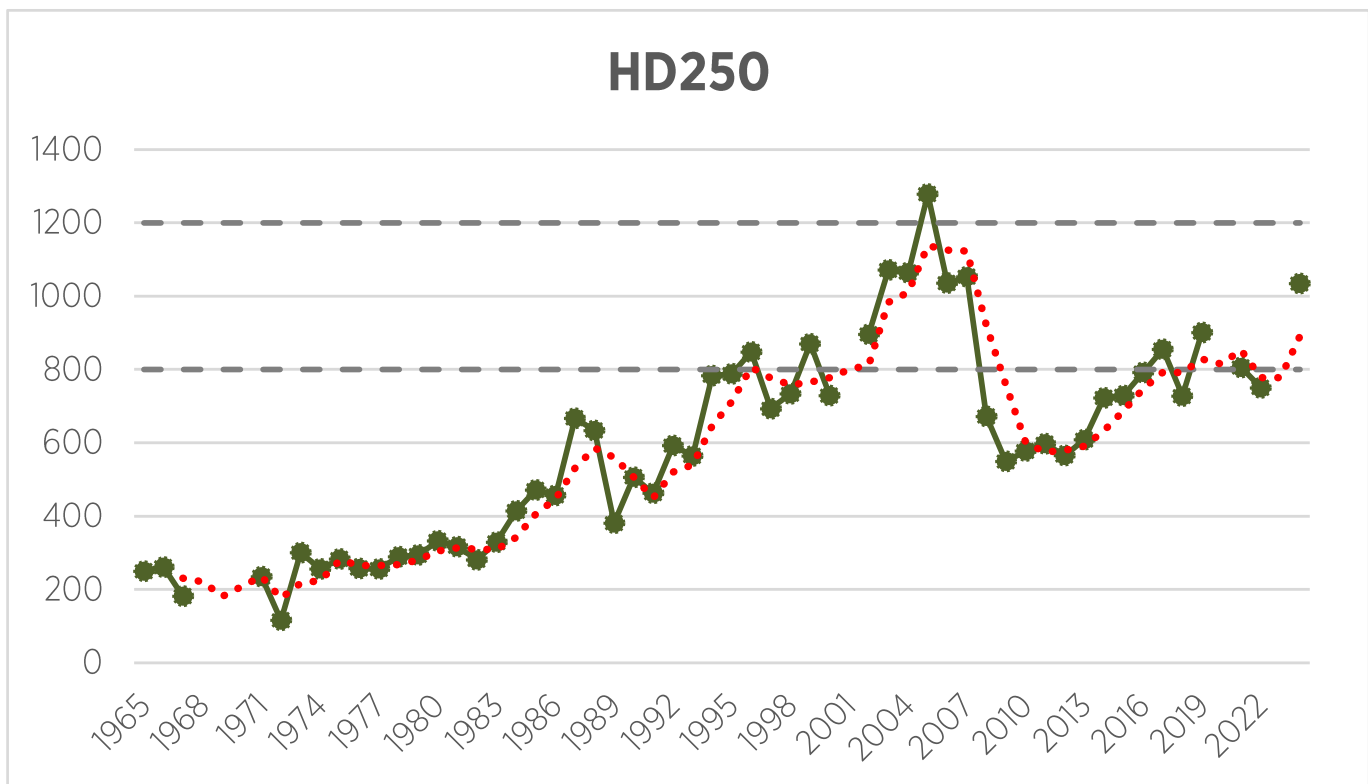
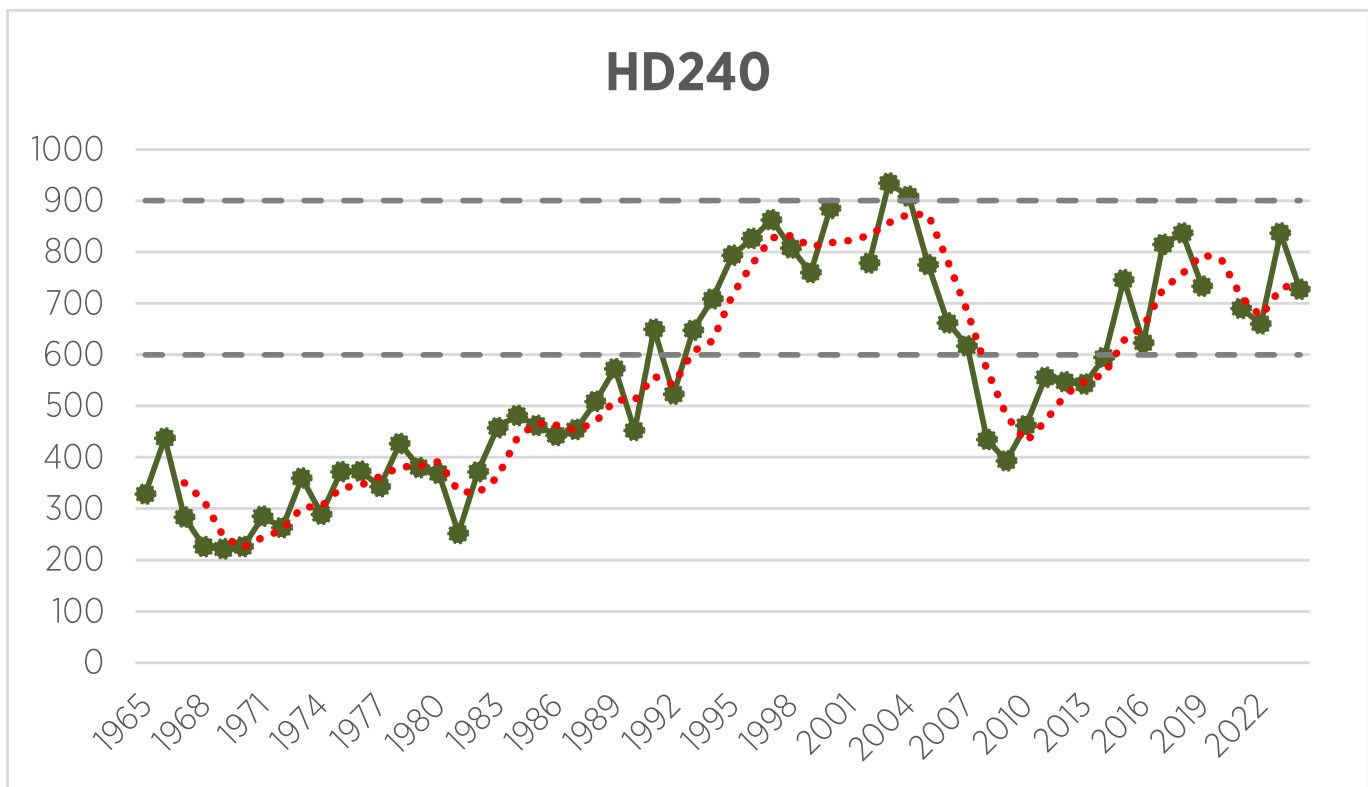




Top: Elk on the slopes of Mount Dean Stone in HD204. As in previous years, elk on MPG Ranch were counted by Craig Jourdonnais. Bottom: Beef Ridge area of HD270. Both these photos were used to aid in counting.



There is a large group of elk in the Hamilton area (n=115) that appears to be associating closely with the herd we consider the “river herd”. This year, they were just inside HD260 off Westside Road, which we know they cross often. This year, we included them in HD240’s count. Five minutes after we counted this herd, we then saw the river herd north of Angler’s Roost (n=86). To what degree these groups fuse/split is unknown. Last year there was a single group observed in this area during the survey (n=160) and we included them with HD240.



Note goal change from 1400 elk (range 1120-1680) to 1000 elk (800-1200).

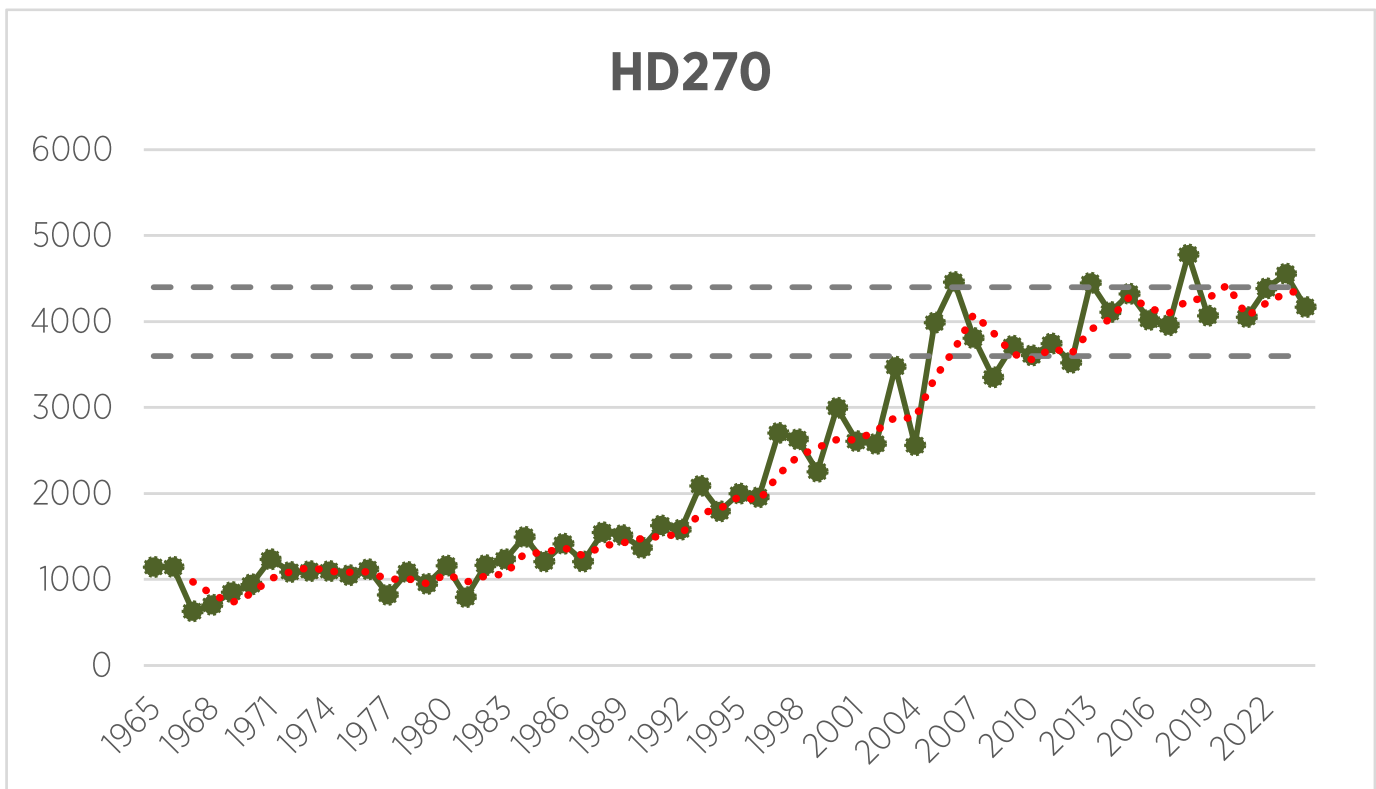
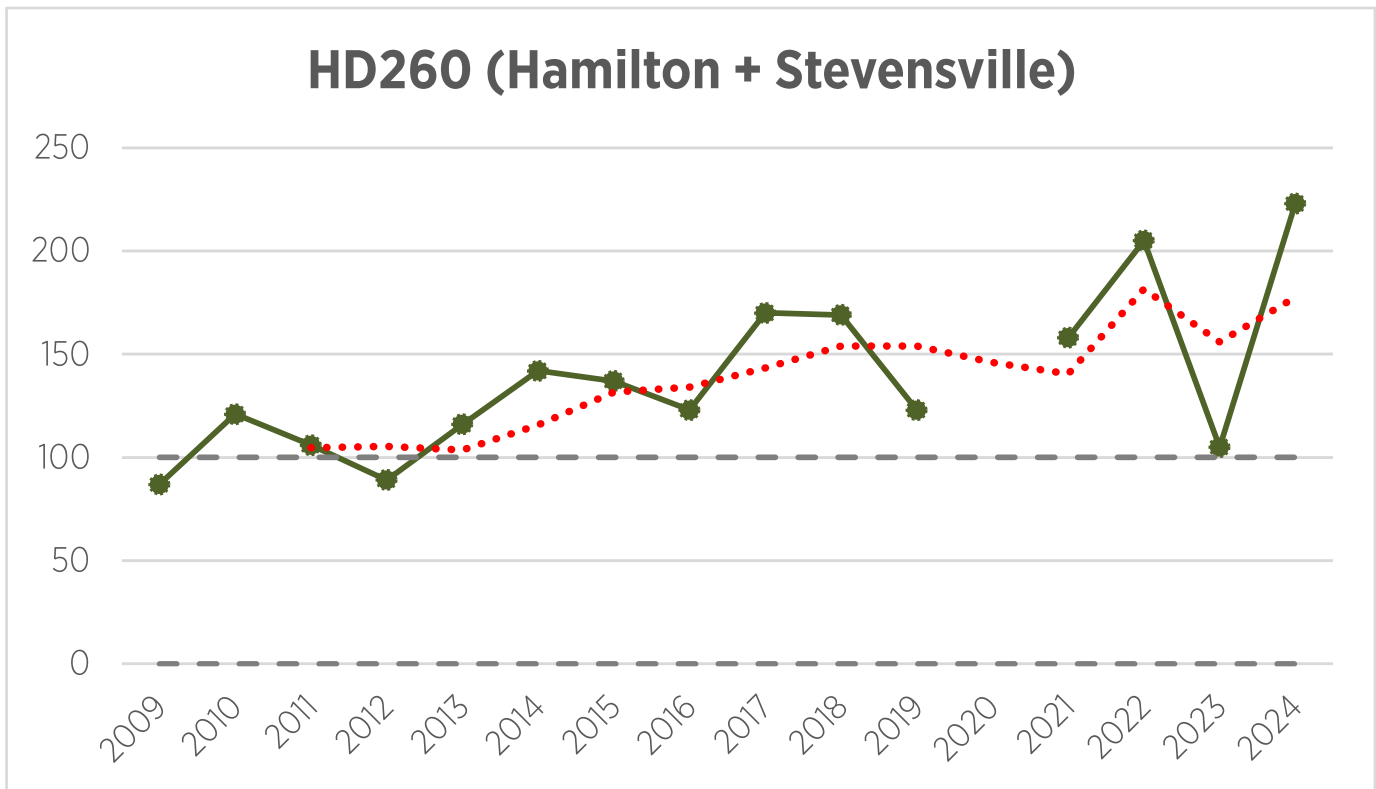




Top: Group of elk off Westside Road in Hamilton near HD240/260 boundary. Bottom: Elk crossing a channel of the Bitterroot River near Stevensville in HD260. A larger group was hiding in the cottonwoods a quarter mile away.



See note for HD240.



Elk in HD270 have been nearing the upper range of the population goal for the last few years, sometimes exceeding it. Harvest alone was not enough to account for the ~400-elk decrease this year, and could be influenced by fewer elk migrating in for the winter, and/or differences in survey conditions.

# Blackfoot

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*\*Kara Clarke, regional access technician and acting access manager, filled in to complete Blackfoot surveys this year while the position was vacant. Thanks, Kara! And please welcome Lee to the Blackfoot. The summary below was prepared by Kara.*

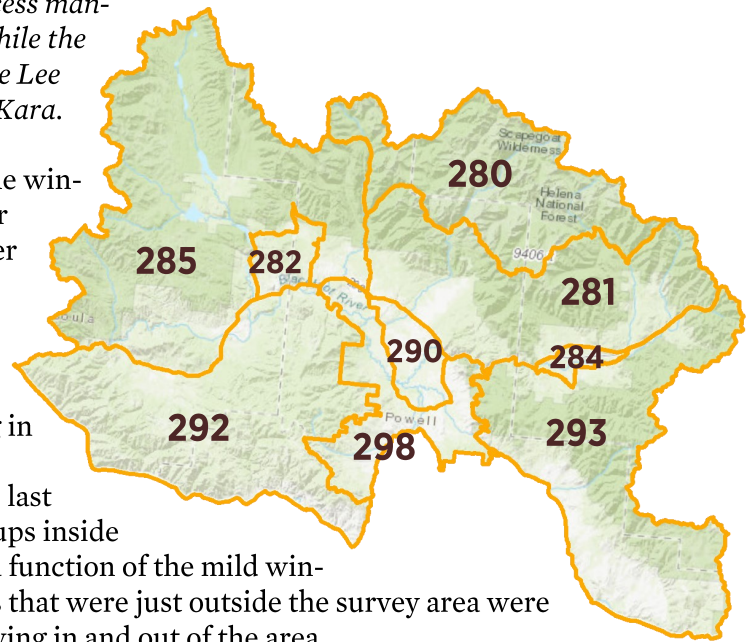
In the Blackfoot, some HDs are surveyed in the winter while others are done in the spring. For our winter surveys in HDs 284/293, we saw a record total number of elk but fewer bulls than normal. Due to fog that morning along some parts of the continental divide, there was low visibility and flight safety concerns along the higher elevation timber lines. These conditions made it difficult to locate mature bulls, resulting in a low bull:cow ratio that is not indicative of trend.

In HDs 282/285-East the count was similar to last year's. Animals were observed dispersed in small groups inside and outside of the survey area which may have been a function of the mild winter and available forage in neighboring areas. Animals that were just outside the survey area were included in the count as there were signs of them moving in and out of the area.

Spring green-up surveys were conducted in late April due to aircraft availability, which unfortunately pushed us past peak conditions. After peak conditions, elk start to disperse away from the large herd groups and tend to bed down in timbered areas earlier in the morning resulting in difficulty locating and classifying them. In HD292 we observed a lower count which may have been a function of missing the peak green-up conditions for this area. We also did not observe the herd that is usually located near Clearwater Junction this day.

In HDs 290/298 and 281, animals were dispersed in smaller herd groups showing signs of late green-up conditions as well, but we did end up with a count that was similar to previous years. Lastly, HD285-West (old 283-East, Gold-Belmont) was not surveyed this year.

Overall calf:cow ratios are on the lower end than what we would like to see for our areas below population goals. Bull:cow ratios are within management goals, apart from HD281 which is below goal.

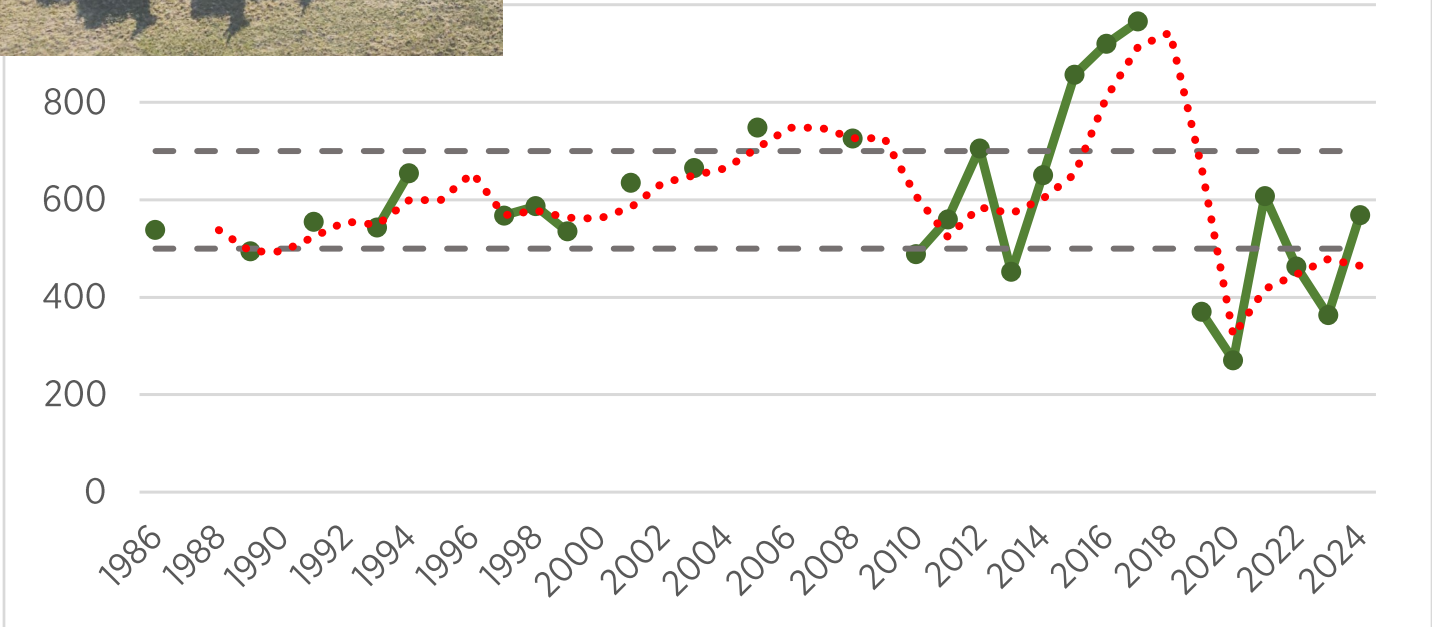


HD	2024 Count	Calf:cow	Bull:cow	2023 count	3-year avg	Goal	Status
280*	NS	NS	NS	NS	NA	NA	NA
281	569	0.17	0.08	363	465	500-700	Below
282/285E	561	0.19	0.25	583	669	900-1100	Below
285W	NS	NS	NS	206 (2022)	220 (2022)	240-360	Below
284/293	702	0.24	0.08**	637	590	600-900	Below
290/298	912	0.25	0.15	297**	738	480-720	Above
292	396	0.17	0.15	473	470	740-960	Below

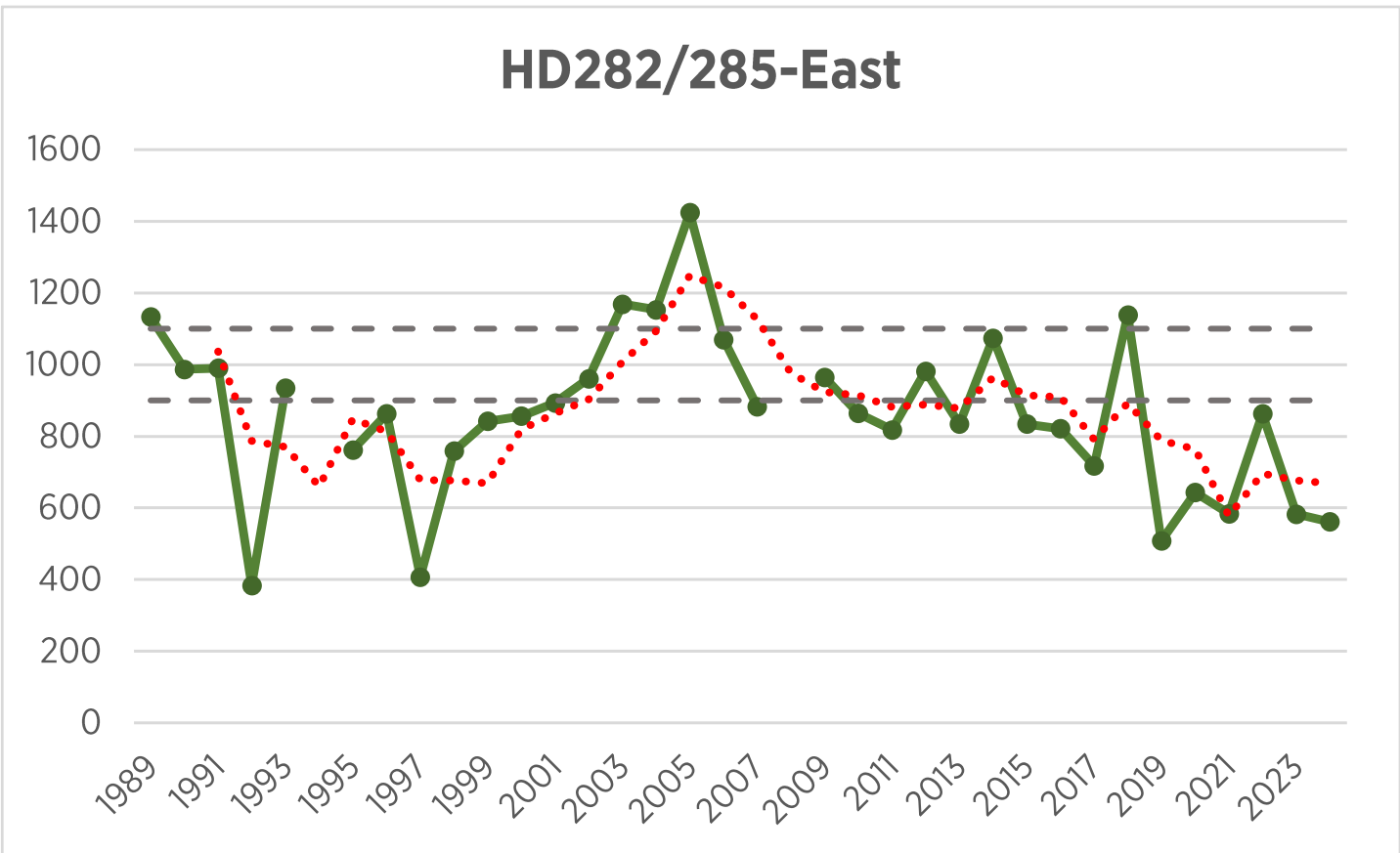
\*HD280 is wilderness and not winter range, thus it is not surveyed. NS=not surveyed this year. \*\*Not indicative of trend. Goal status is based on the 3-year average.



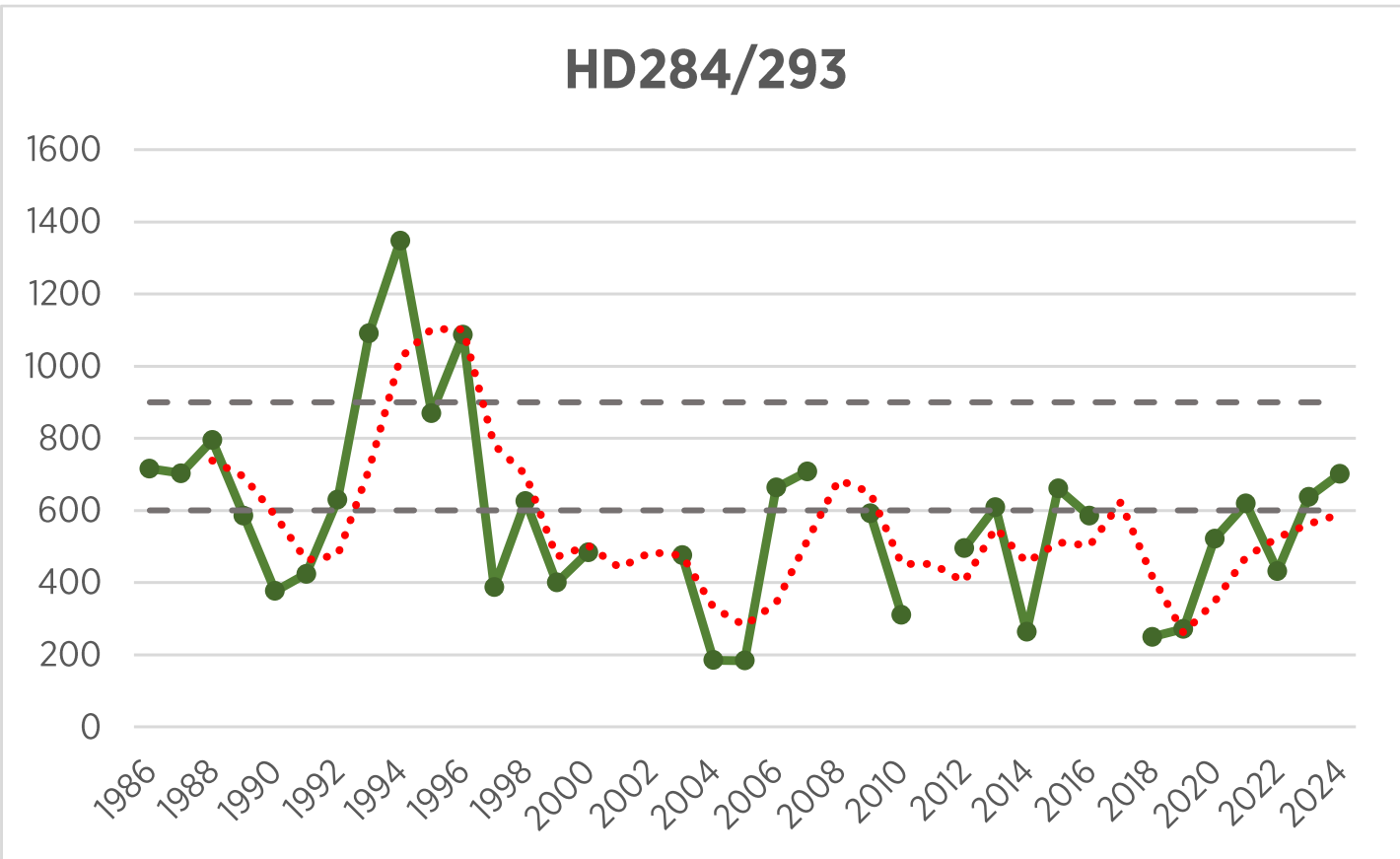
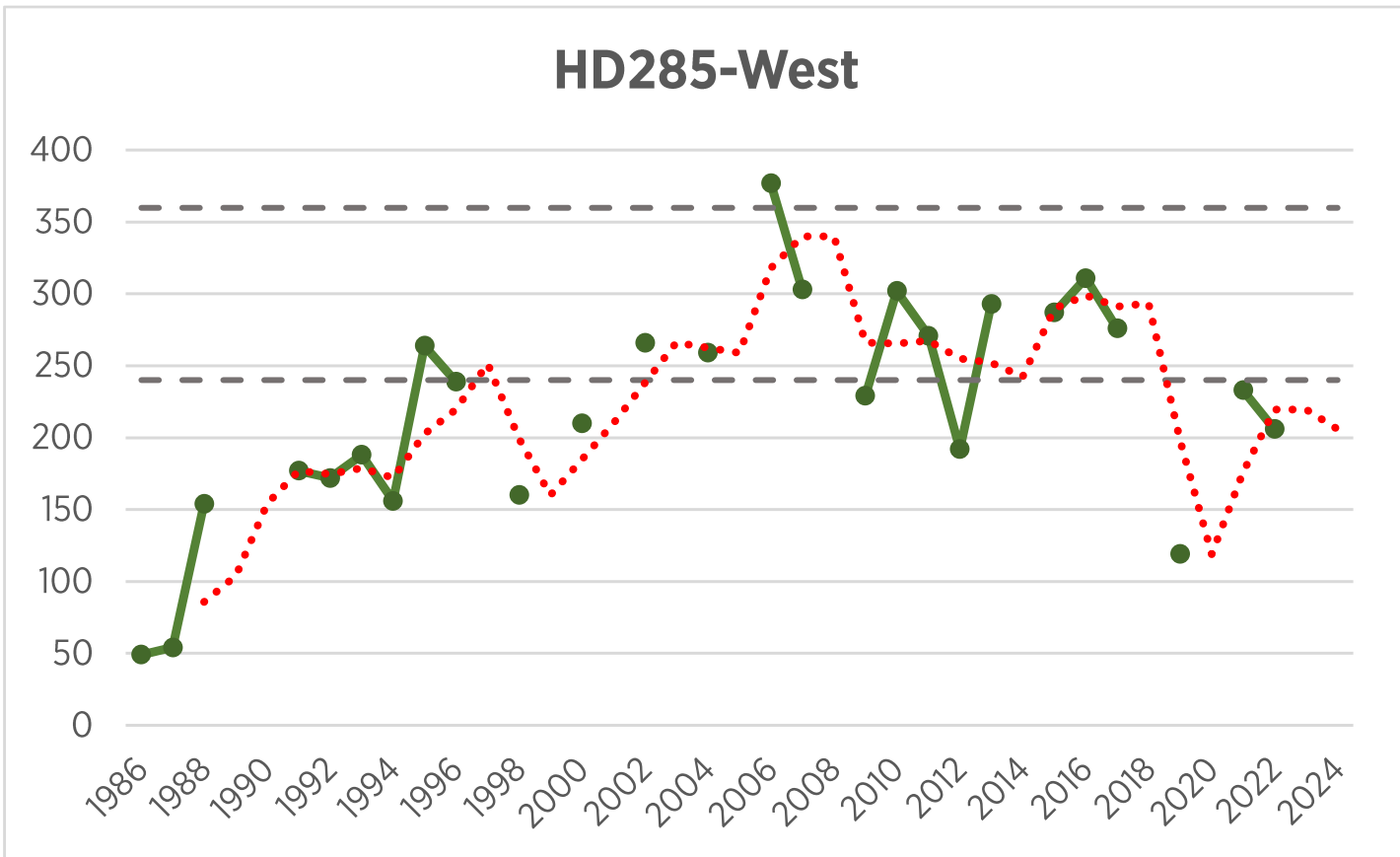
## HD281



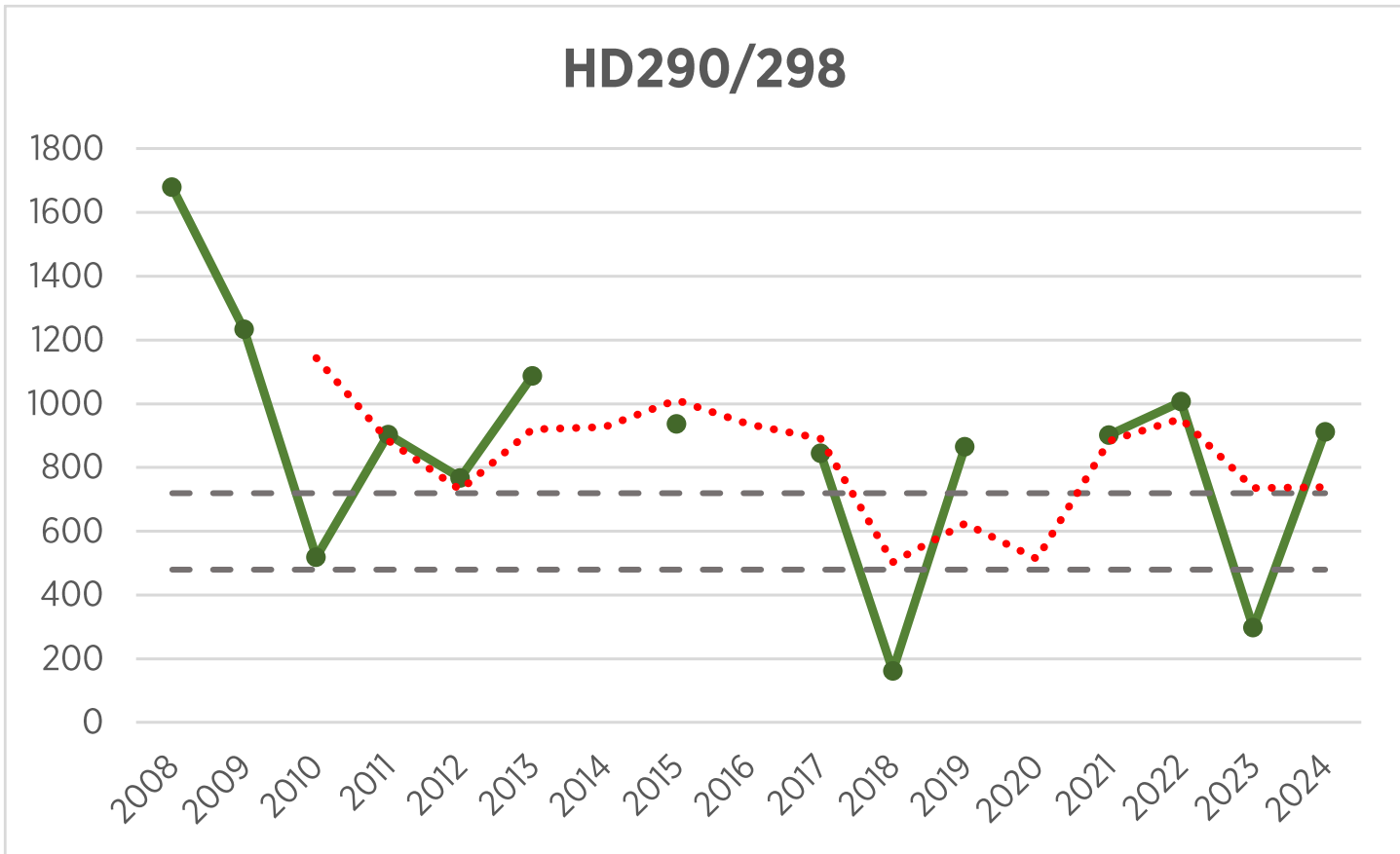
## HD282/285-East

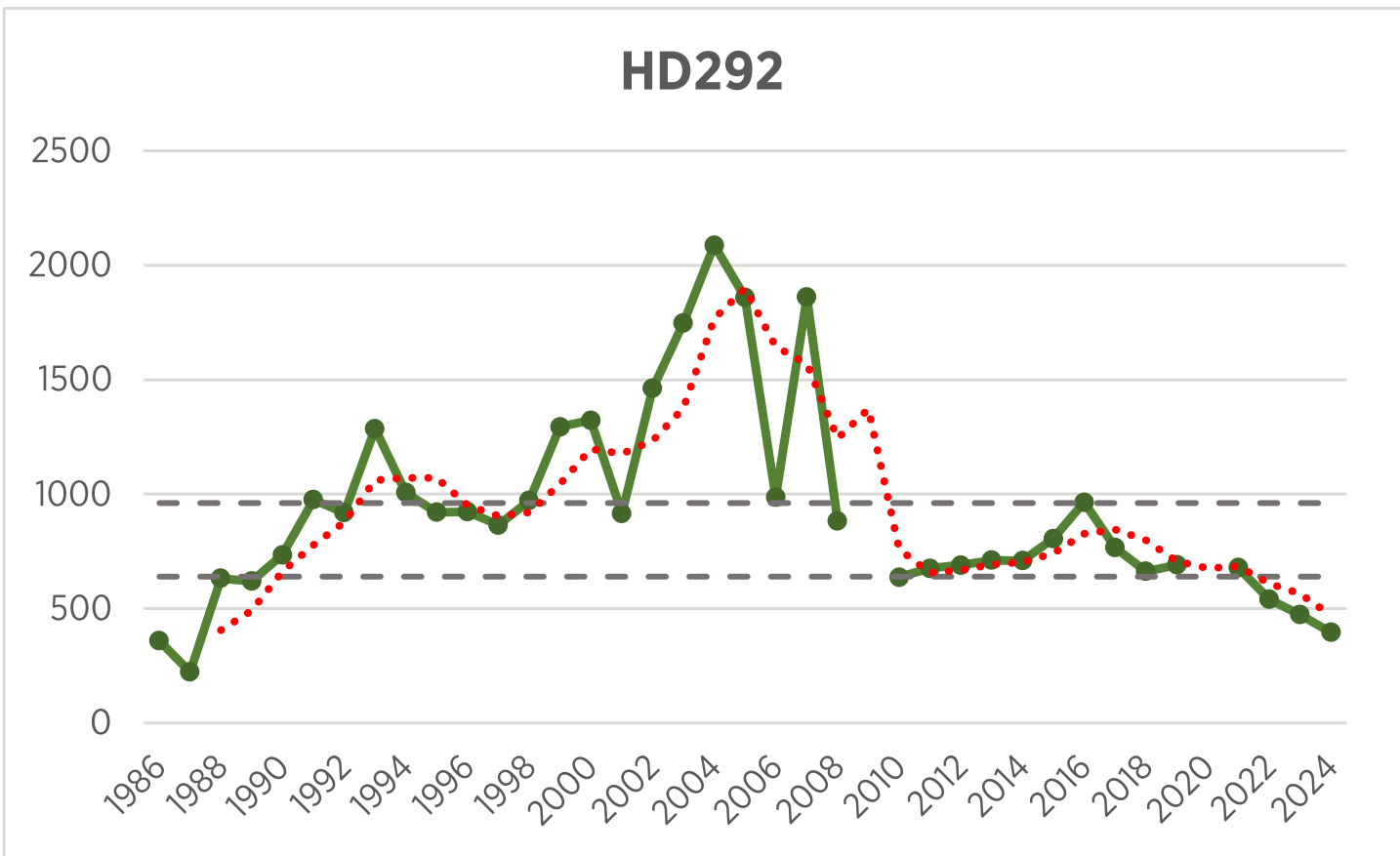


Top: Bachelor herd observed in HD281.



Last year's count in HD290/298 was considered not indicative of trend, with significant groups missing from their normal range. They were back this year. However, last year's lower count is included in the 3-year average. Below: a large elk herd observed in HD298. Next page: bachelor group also observed in HD298 near the boundary with HD293.







# Elk Regulation Changes for 2024




## Lower Clark Fork

-  HD 201: Remove “not valid east of Hwy 93” restriction from 201-01 B-license.



## Upper Clark Fork

-  HD210: New boundary separates North and South portions, check legal description for details. (1) For 210-03 B-license, add restriction “valid on private lands in HDs 210 South, 211, 212, and 216”; (2) also on 210-03 B-license, add late season valid to January 8; (3) Add new 210-04 B-license, quota=50 (quota range 5-200), valid on private lands in HD210 North.
-  HD217: (1) Remove early season opportunity on general license for youth/PTHFV and ArchEquip Only; (2) change early season dates on 217-02 B-license to August 15 to the day before Archery Only season; (3) add Archery Only season.

## Bitterroot

-  HD204: (1) Add general license antlerless opportunity to north portion (Eight Mile North), private land only, valid from start of rifle season to January 8; (2) remove late season opportunity on 262-01 B-license from the rest of HD204 (excluding north portion).
-  HD262: (1) add limited BTB elk permit, quota=20; (2) remove late season from 262-01 B-license.
-  HD270: (1) Expand 262-01 B-license, previously valid only north of Rye Creek, to all of HD270 (private land only with no late season); (2) expand quota range of 270-01 B-license to 10-400 (previously 10-200) and increase quota to 300.

## Blackfoot

-  HD281: Restore 281-01 B-license, quota=10 (quota range 5-200).
-  Correction to printed regulations: On June 20, the FWP Commission approved amending an error in HD280 that left a one-day gap between seasons. The 2024 brow-tined bull or antlerless season has been changed to Sep 26—Dec 1.