



Predator Compensation 2015 to 2020

South Saskatchewan Region

Alberta 

Environment and Parks, Government of Alberta

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Introduction

The [Wildlife Predator Compensation Program](#) provides compensation to ranchers whose livestock are killed or injured by wildlife predators. Compensation is covered for cattle, bison, sheep, swine and goats. It does not cover horses, donkeys, or exotic animals such as llamas, alpacas or wild boar. The program covers those animals attacked by wolves, grizzly bears, black bears, cougars and eagles. Coyotes and other wildlife are not included. This Predation Summary includes those Fish and Wildlife Enforcement Districts that fall within the Southwest Alberta area (SWA) (Figure1).

The costs of veterinary care and medication associated with the loss of an animal is compensated up to the value of the animal based on the average commercial value for the type and class of livestock on the day it was killed or injured. Incidents where predators are feeding on dead livestock that dies of disease or causes other than predation are not compensated.

Funding for the Wildlife Predator Compensation Program comes from dedicated revenue from the sale of recreational hunting and fishing licences in Alberta and from the federal government.

Study Area

The SWA study area includes the South Saskatchewan and Milk River basins. The region includes multiple cities, towns and villages, First Nations Reserves and numerous Parks and Protected areas. It accounts for 1.6 million people or 45% of the total population of Alberta. Southwest Alberta has a diversified economy that includes strong energy, agricultural, manufacturing, tourism and forestry sectors and a fast developing renewable energy industry.

The SWA area incorporates six Natural regions including Grassland, Parkland, Foothills and Rocky Mountains. This diverse landscape extending eastwards from the Rocky Mountains to forested foothills to the prairies provides habitat for numerous fish, bird and plant species. Mammals such as moose, deer, elk, pronghorn, wolves, grizzly and black bears and cougars all exist within SWA. The existence of large carnivores and domestic livestock, particularly in the western portion of the region, can result in livestock predation on both private and public lands.

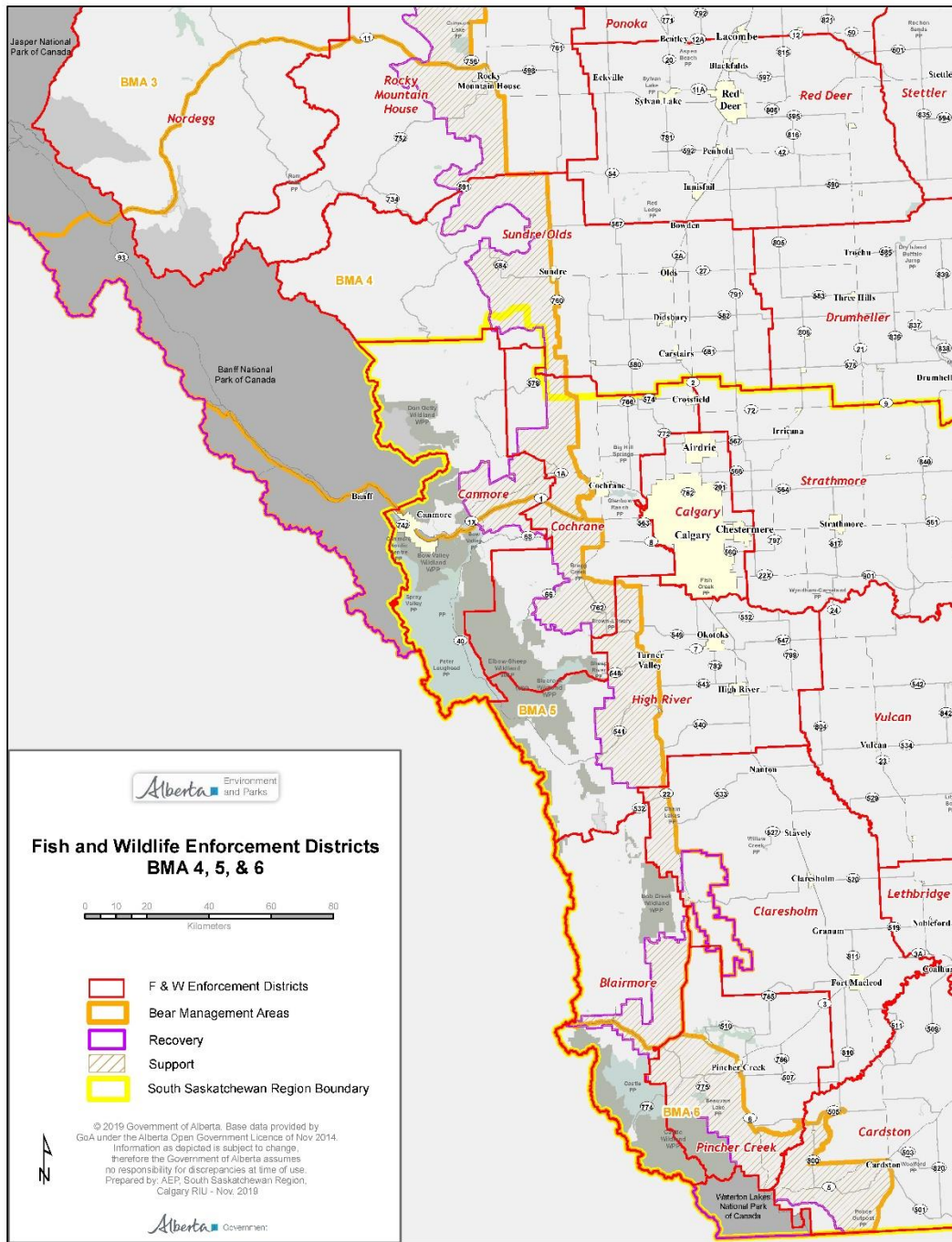


Figure 1. SWA Fish and Wildlife Enforcement Districts

Methodology

Predator compensation claim records were obtained from Government of Alberta Wildlife Predator Compensation Claim information compiled annually between 2015 and 2020. In total 947 claims were reviewed and analyzed. Only Confirmed and Probable claims were included for this report; this included livestock injured or killed by the relevant predators. Claims were summarized by Fish and Wildlife Enforcement District, predator / prey species and the number of domestic animals involved. Those Districts that lie completely or partially within SWA were included. Spatial and temporal information was also included for each Claim. Compensation claims were separated into Primary and Secondary claims. Primary claims include occurrences where a single animal or the first of multiple animals were attacked. Secondary claims identify multiple animals attacked during the same incident. For example, if a predator killed 5 sheep, a Primary claim would represent the first animal killed and Secondary claims would be applied to the other 4 sheep killed. Primary claims reflect the number of individual events that occurred while Secondary claims reflect the total number of animals involved. Depending on the analysis, Primary and Secondary claims were combined or analyzed separately. The time of predation was considered by season: Winter (December 1 to February 28), Spring (March 1 to May 30), Summer (June 1 to August 31) and Fall (September 1 to November 30). In the case of monies paid out for compensation, dollar values expressed include both Primary and Secondary claims (i.e. all animals involved).

Results

Each District varies with respect to the predator species involved and the type and number of livestock that are killed or injured. This directly impacts how much compensation is paid out, i.e. individual cattle have higher compensation cost than individual sheep or goats. Prices for livestock also fluctuate annually with markets resulting in variable costs for the overall program from year to year.

District Compensation Claims

Rocky Mountain House District had 59 Primary Claims approved between 2015 and 2020 (Figure 2). Wolves were the primary predator, accounting for 51 % (30 of 59) of claims. Cougars were involved in 24 % (14 of 59) followed by grizzly bears (19% or 11 of 59), black bear (5% or 3 of 59) and unknown bear (2% or 1 of 59). Eighty-six livestock animals were killed or injured including domestic sheep (51% or 44 of 86) and cattle (49% or 42 of 86 animals).

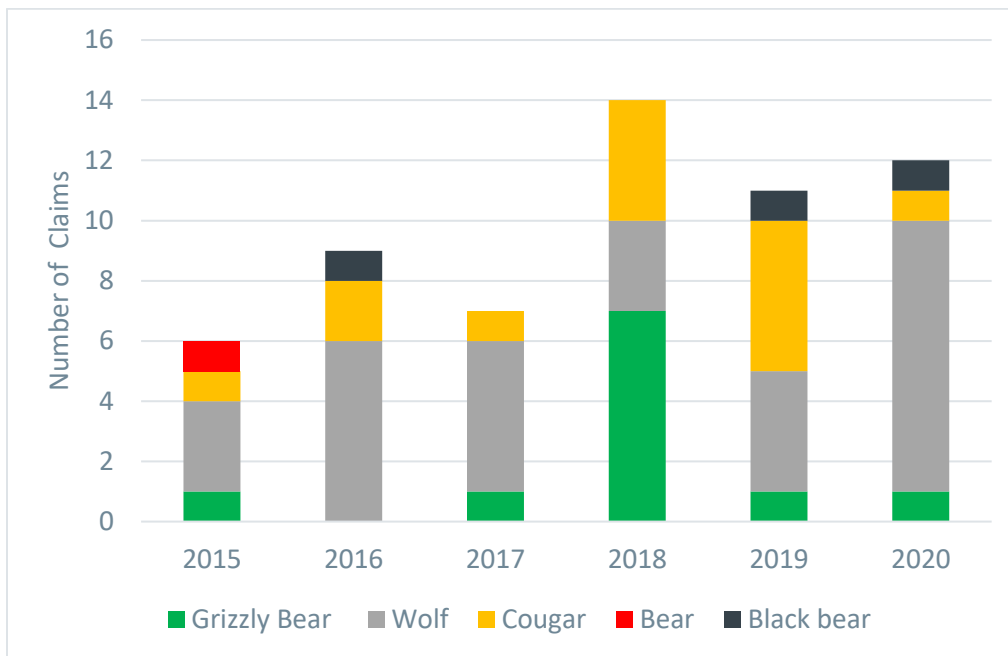


Figure 2. Rocky Mountain House Primary Compensation Claims (N=59)

Fifty-four percent of Primary claims between 2015 and 2020 (32 of 59) occurred during the Summer season, 31% (18 of 59) during Fall and 14% (8 of 59) in the Spring (Figure 3). There was only one claim during the Winter season. Wolf activity was present during all four seasons. There has been \$61,127 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

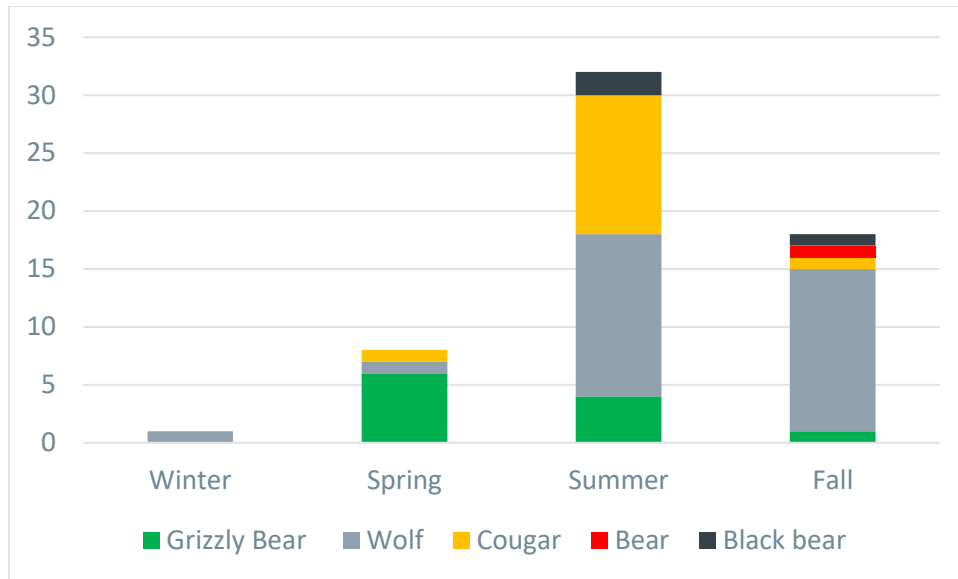


Figure 3. Rocky Mountain House Primary Compensation Claims by Season 2015 to 2020 (N=59)

Sundre-Olds District had 28 Primary Claims approved between 2015 and 2020 (Figure 4). Cougars were the primary predator, accounting for 50% (14 of 28) of claims. Wolves were involved in 29% (8 of 28) followed by unknown bears (17% or 4 of 28), grizzly bear (4% or 1 of 28) and black bear (4% or 1 of 28). Fifty-three livestock animals have been killed or injured since 2015 including domestic sheep (70% or 37 of 53 animals), cattle (23% or 12 of 53 animals) and goats (7% or 4 of 53).

Primary claims between 2015 and 2020 increased as the seasons progressed, the majority occurring during the Fall (39% or 11 of 28) (Figure 5). Wolf and cougar activity was relatively constant all year. There has only been one grizzly bear claim which occurred in the Spring of 2016. There has been \$18,989 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

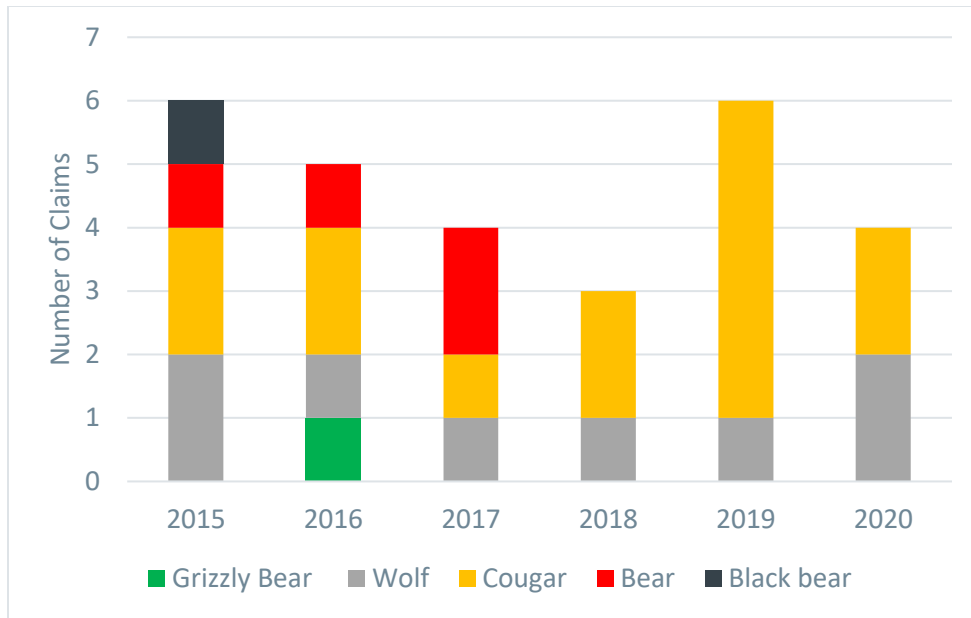


Figure 4. Sundre-Olds Primary Compensation Claims (N=28)

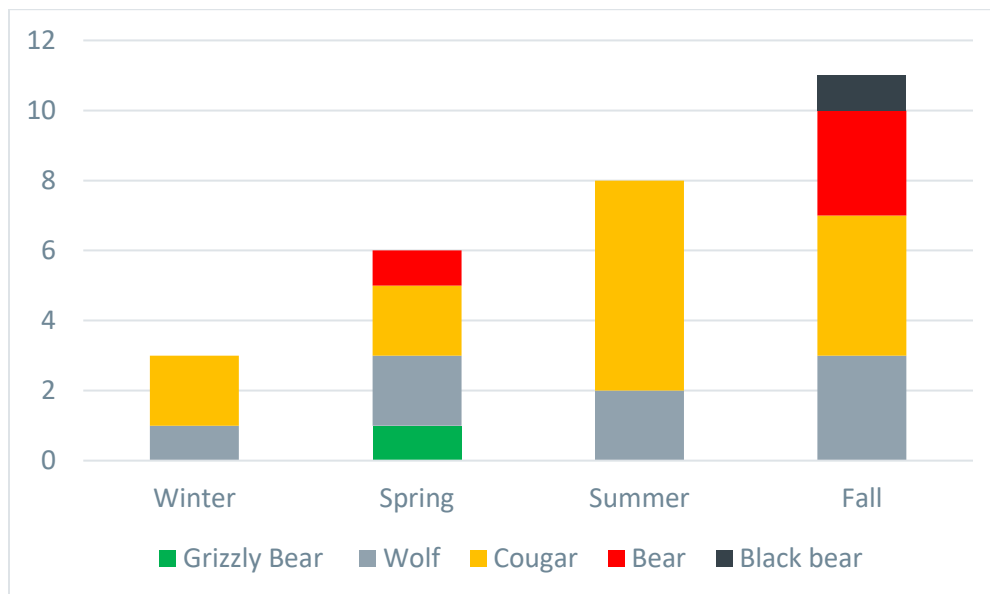


Figure 5. Sundre-Olds Primary Compensation Claims by Season 2015 to 2020 (N=28)

Cochrane/ Canmore District had 75 Primary Claims approved between 2015 and 2020 (Figure 6). Predator species were split between wolves (43% or 32 of 75), cougars (31% or 23 of 75) and grizzly bears (25% or 19 of 75). One hundred and seventy livestock animals were involved. The majority of these depredation events have been on domestic sheep (51% or 87 of 170) followed by cattle (42% or 71 of 170) and goats (7% or 12 of 170). Almost half of the cougar / sheep predations occurred in 2019; 37 sheep were killed in one incident by an older, quite thin adult male. In 2018, a cougar killed an additional 14 sheep in one incident. These two incidents account for almost two thirds of the total sheep killed or injured between 2015 and 2020. Cattle were the only livestock involved in predation claims in 2020.

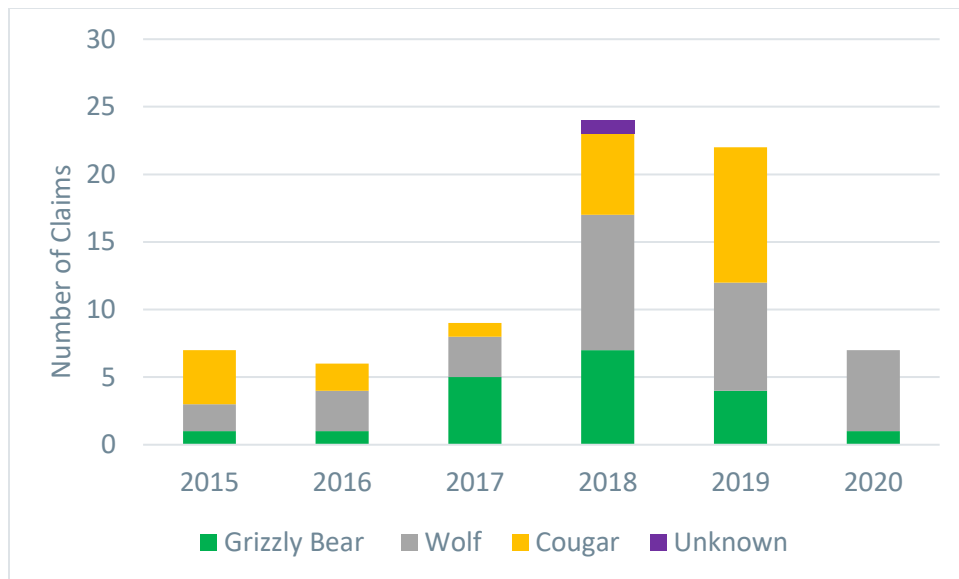


Figure 6. Cochrane / Canmore Primary Compensation Claims (N= 75)

The majority of Primary claims between 2015 and 2020 occurred in the Summer (39% or 29 of 75) and Fall (40% or 30 of 75) (Figure 7). Cattle and goat claims were present in all 4 seasons while sheep claims occurred during the Winter, Summer and Fall. There has been \$111,667 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

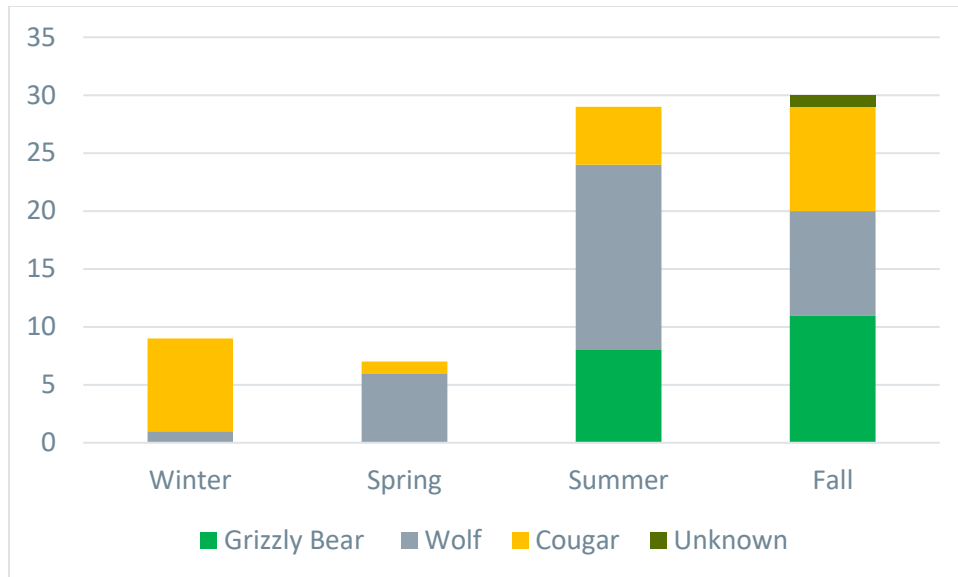


Figure 7. Cochrane / Canmore Primary Compensation Claims by Season 2015 to 2020 (N= 75)

High River District had 89 Primary Claims approved between 2015 and 2020 (Figure 8). Wolves were involved in 51 % (45 of 89) of the incidents followed by cougars (21% or 19 of 89), grizzly bears (18% or 16 of 89) and black bear and unknown bear (both at 4% or 4 of 89). There were 133 livestock animals killed or injured by predators during this period. Sixty-eight percent (90 of 133) involved cattle, 28 % sheep (37 of 133) and five % goats (6 of 133). Cattle predation numbers have been steadily increasing since 2016 (1) and 2020 (22) largely due to wolf activity. Wolves accounted for two thirds of the predation on cattle. Cougars were responsible for all of the sheep and goat predations. There was one calf killed by an eagle in 2015.

Primary claims between 2015 and 2020 occurred all year, increasing as the year went on (Figure 9); 4 % (4 of 89) in the Winter, 19 % (17 of 89) in the Spring, 33 % (29 of 89) in the Summer and 44 % (39 of 89) in the Fall. Cattle claims were present in all four seasons while sheep claims occurred in Winter, Summer and Fall and goat claims in Spring, Summer, Fall. There has been \$125,912 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

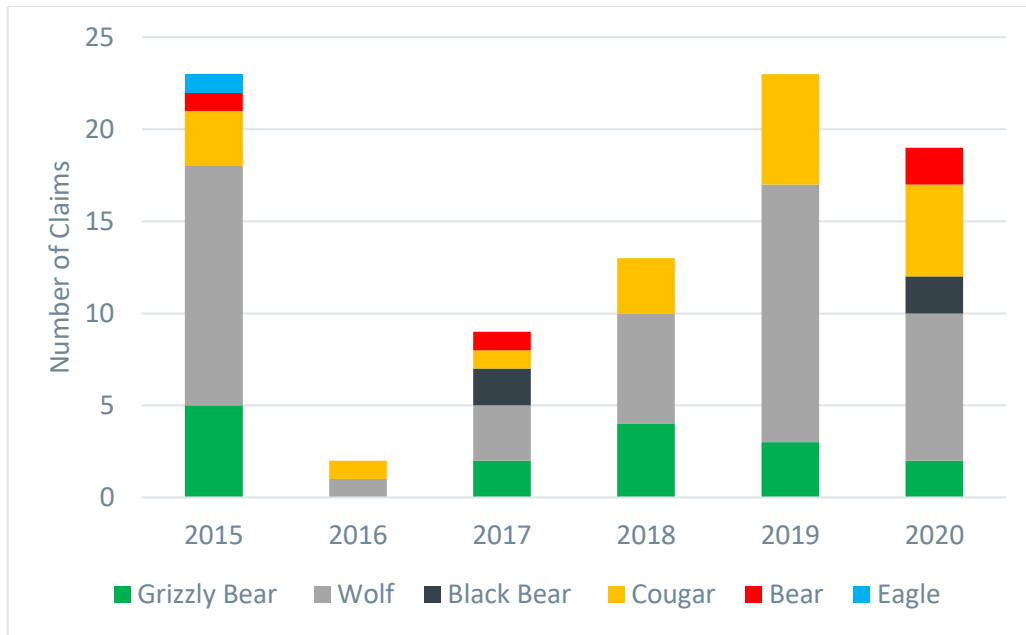


Figure 8. High River Primary Compensation Claims (N= 89)

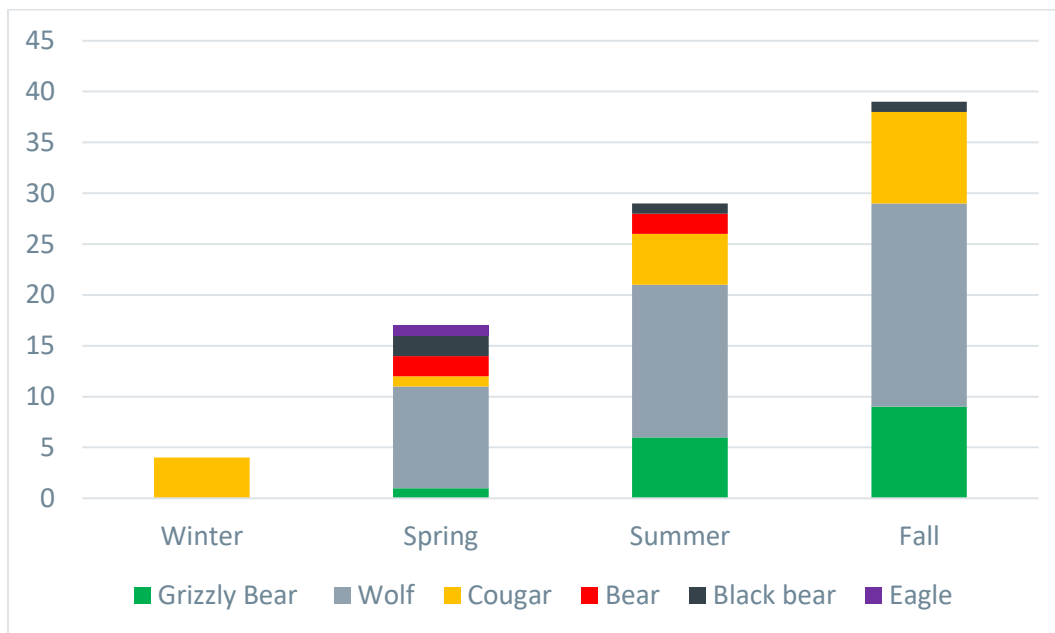


Figure 9. High River Primary Compensation Claims by Season 2015 to 2020 (N= 89)

There were 78 Primary Claims approved in the **Claresholm District** between 2015 and 2020 (Figure 10). Grizzly bears were involved in 59 % (46 of 78) of claims followed by wolf (17% or 13 of 78), unknown bear (9% or 7 of 78), black bear (8% and 6 of 78) and cougar (6% or 5 of 78). There were 117 livestock killed or injured; cattle incidents comprised 64 % (75 of 117) of claims, sheep 33 % (39 of 117) and goats 3 % (3 of 117). Grizzly bears were responsible for the majority of cattle claims (42 of 68) while cougars were responsible for 4 of the 7 sheep claims. There was one eagle claim in 2020 which resulted in the death of 18 sheep (lambs).

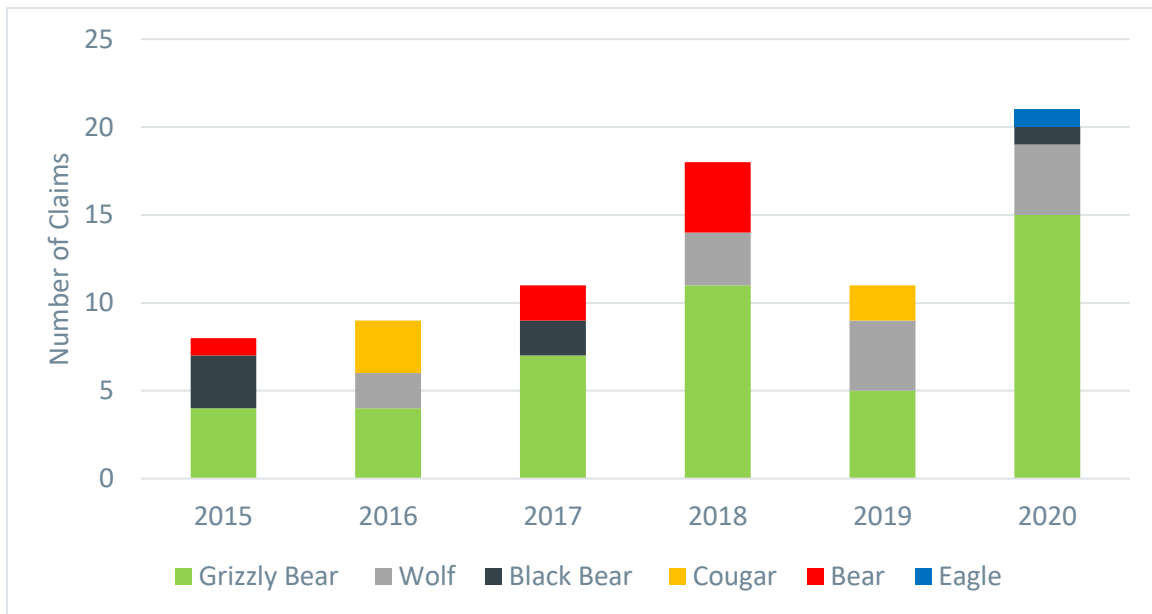


Figure 10. Claresholm Primary Compensation Claims (N=78)

Primary claims between 2015 and 2020 occurred throughout the year, claims increasing to a peak in the Fall when 42% of claims (33 of 78) occurred (Figure 11). Multiple species of carnivores were involved including grizzly bear, black bear, wolf, cougar and eagle. The majority of claims were cattle related occurring in Spring, Summer and Fall while sheep claims occurred in Winter, Spring and Summer. There has been \$108,689 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

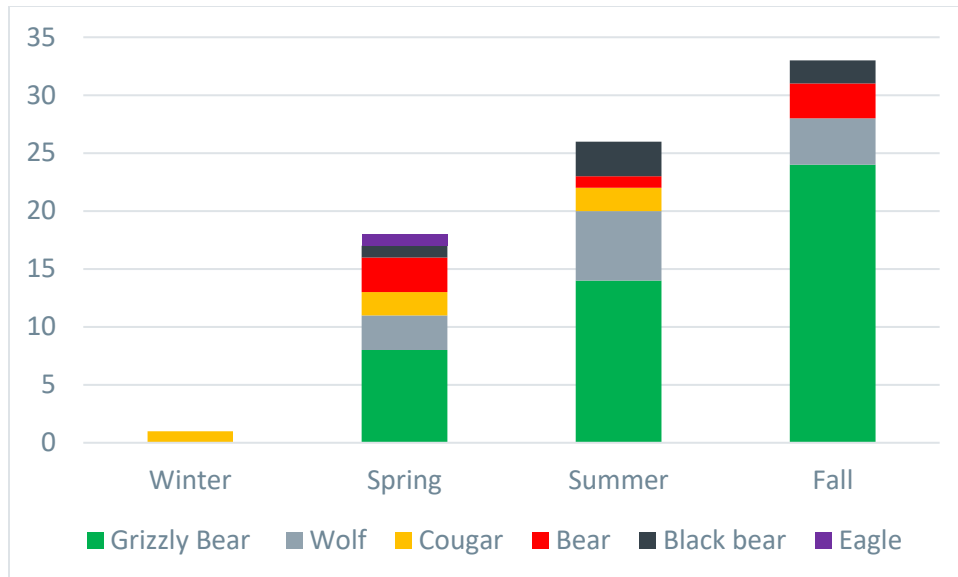


Figure 11. Claresholm Primary Compensation Claims by Season 2015 to 2020 (N=78)

Blairmore District had 45 Primary Claims approved between 2015 and 2020 (Figure 12). Grizzly bears were involved in 56 % (25 of 45) of the incidents followed by wolves (36% or 16 of 45); unknown bears (4% or 2 of 45) and black bear (4% or 2 of 45). The 45 claims all involved cattle except for one goat claim in 2020 and none involved multiple animals. There were no recorded grizzly bear claims in 2019.

Over half of the Primary claims between 2015 and 2020 were during the Summer season (56% or 25 of 45) (Figure 13). There were wolf claims throughout the year while grizzly bear claims occurred during the Spring, Summer and Fall. There were no cougar claims recorded in 2020. The cattle claims were present in all three seasons. There has been \$64,808 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020

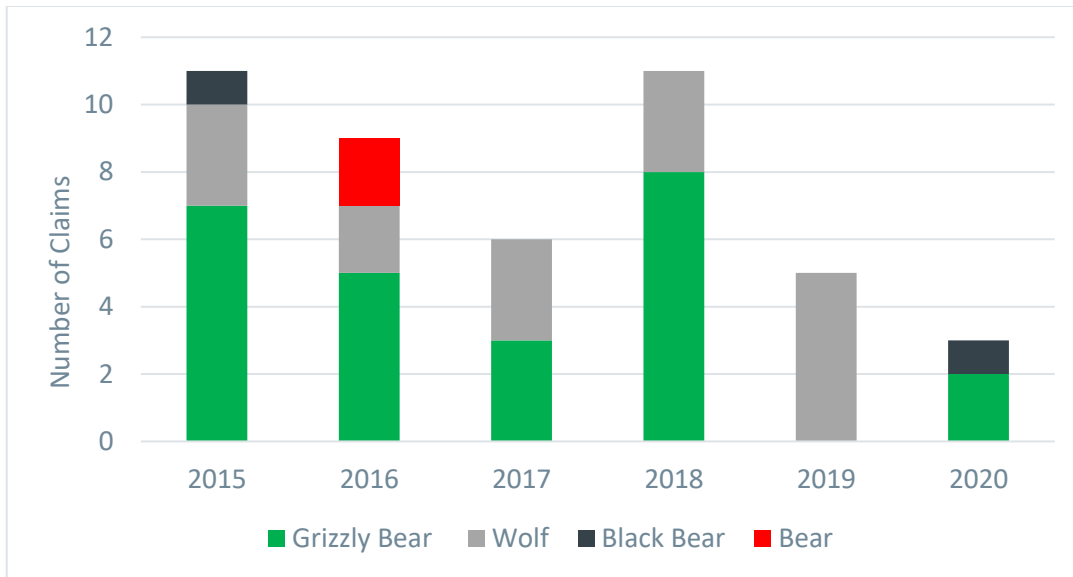


Figure 12. Blairmore Primary Compensation Claims (N=45)

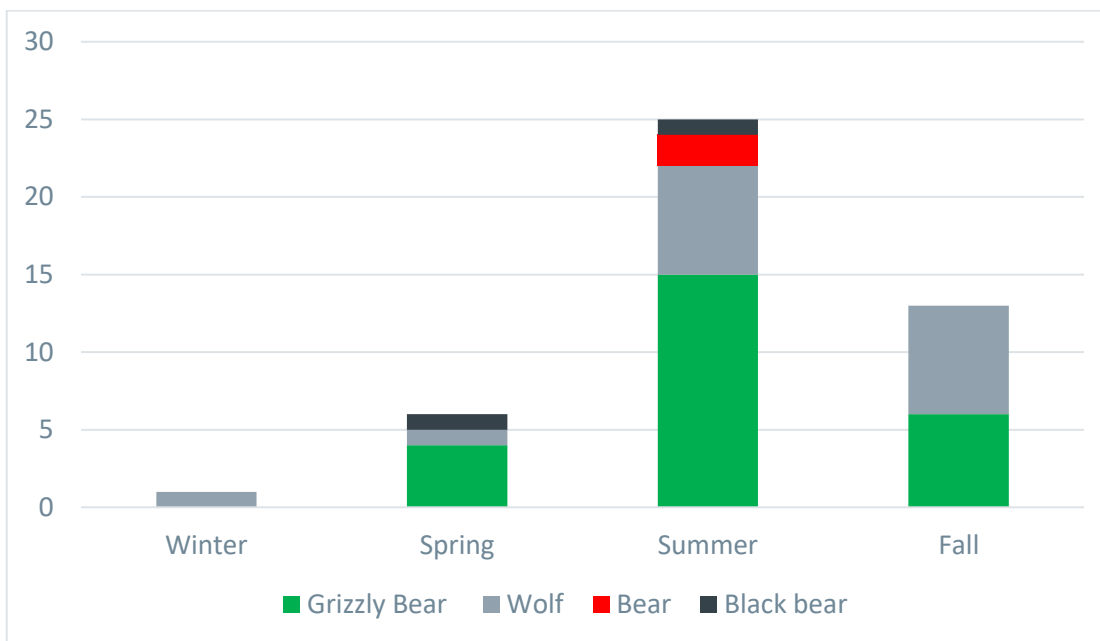


Figure 13. Blairmore Primary Compensation Claims by Season 2015 to 2020 (N=45)

Pincher Creek District had 165 Primary Claims approved between 2015 and 2020 (Figure 14). Grizzly bears were involved in 74% (122 of 165) of the incidents followed by wolves (16% or 26 of 165), unknown bear (7% or 11 of 165), cougar (3% or 5 of 165) and black bear (1% or 1 of 165). There were 209 livestock animals killed or injured. Ninety-four percent (165 of 209) of depredation involved cattle; 123 (75%) by grizzly bears, 29 (18%) by wolves, 11 (7%) by unknown bears and one each (1%) for cougars and black bears. Sheep were involved in 14 % of incidents (29 of 209); grizzly bears were responsible for 24 of them followed by cougars (5).

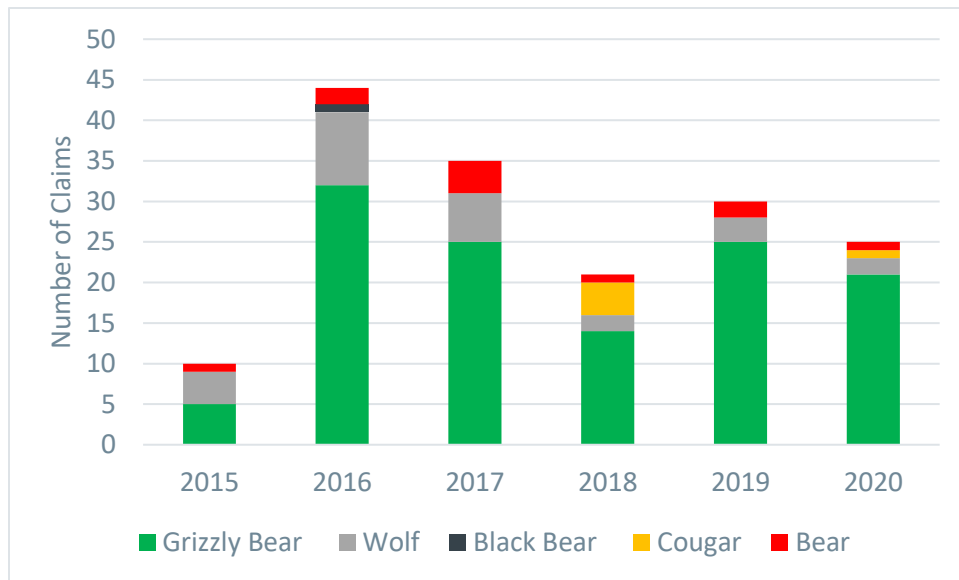


Figure 14. Pincher Creek Primary Compensation Claims (N=165)

The majority of Primary claims between 2015 and 2020 occurred during the Summer (58% or 95 of 165) (Figure 15). There were no claims during the Winter season. Cattle and sheep claims occurred during the Spring, Summer and Fall. There has been \$259,351 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

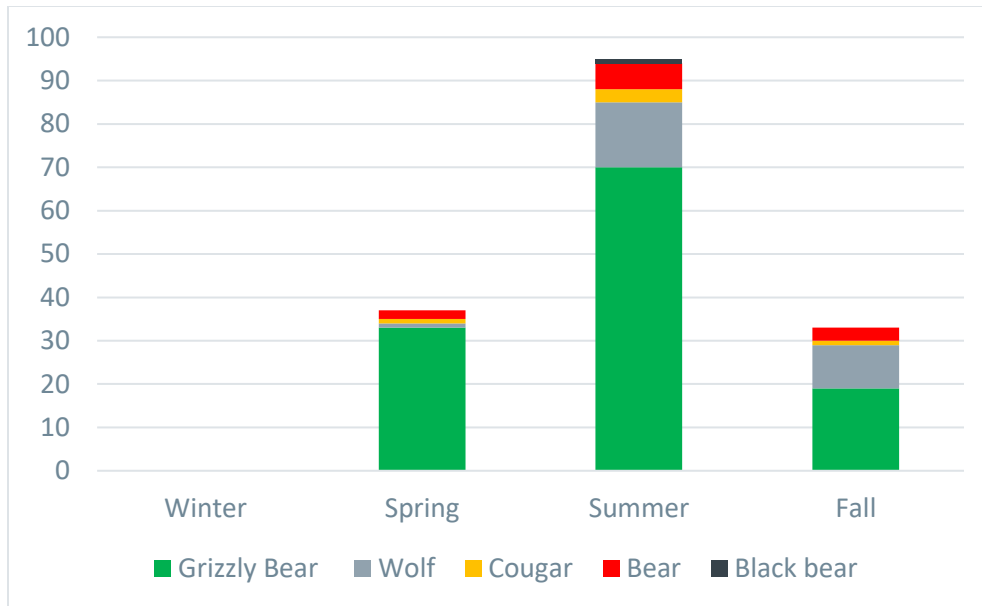


Figure 15. Pincher Creek Primary Compensation Claims by Season 2015 to 2020 (N=165)

Cardston District had 76 Primary Claims approved between 2015 and 2020 (Figure 16). Grizzly bears were involved in 75 % (57 of 76) of the incidents followed by wolves (17% or 13 of 76), cougars/ black bears (3% or 2 of 76 each) and eagles/ unknown bear (1% or 1 of 76 each). There were 130 livestock animals involved. Cattle were involved in 51 % (66 of 130) of depredation events and 48 percent (63 of 130) involved sheep. Grizzly bears were responsible for 92 % (58 of 63) of sheep claims which is unique in the Region where cougars are typically responsible for most sheep depredation. Many of these claims involved seven or eight sheep being killed or injured in one event. Grizzly bears accounted for 74 % (49 of 66) of cattle predations, wolf 24 % (13 of 50), black bears four % (2 of 66) and unknown bears two % (1 of 66).

The majority of Primary claims between 2015 and 2020 occurred during the Summer (41% or 31 of 76), Spring (30% or 23 of 76) and Fall (26% or 20 of 76) (Figure 17). Wolf claims were present throughout the 4 seasons while grizzly bear claims occurred during the Spring, Summer and Fall. Cattle and sheep claims occurred throughout the year. There has been \$97,547 paid out in compensation (Primary and Secondary claims) in this District between 2015 and 2020.

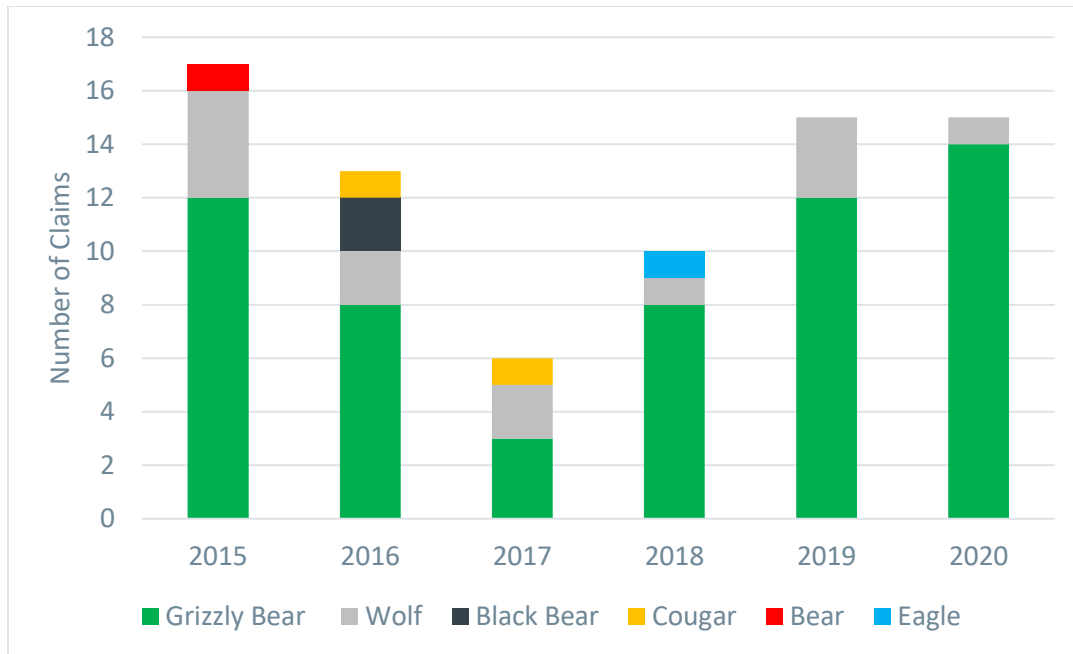


Figure 16. Cardston Primary Compensation Claims (N=76)

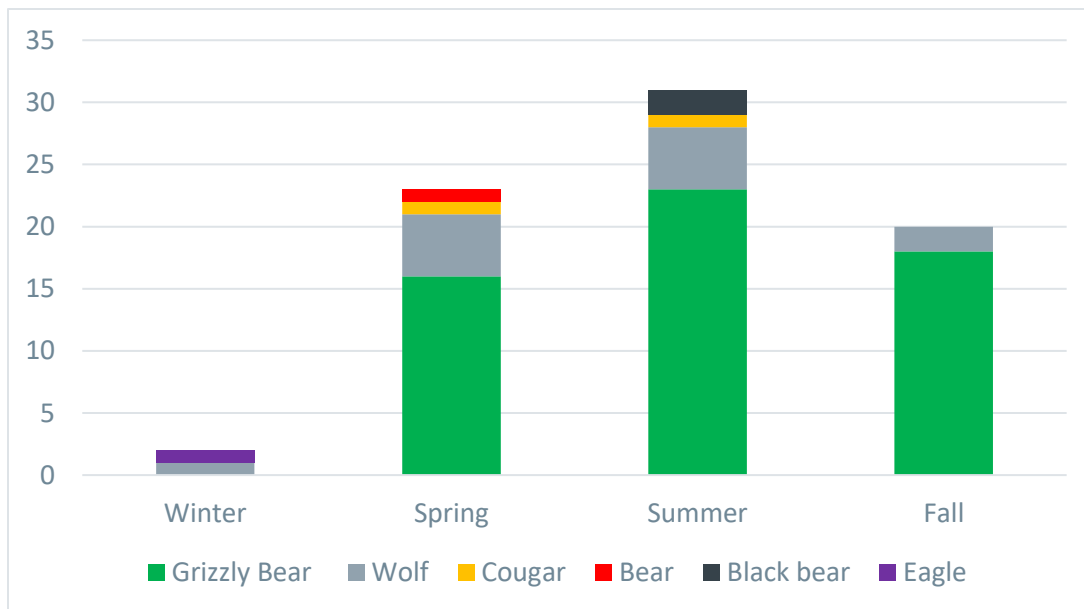


Figure 17. Cardston Primary Compensation Claims by Season 2015 to 2020 (N=76)

Regional Compensation Claims

The eight Districts that fall within SWA accounted for 615 Primary Claims approved between 2015 and 2020 (Figure 18). Grizzly bears were involved in 297 (48%) of all depredation incidents followed by wolves (30% or 183 of 615), cougars (13% or 82 of 615), unknown bears (5% or 30 of 615), black bears (2% or 19 of 615), eagles (1% or 1 of 615) and unknown species (1% or 1 of 615). There were a total of 943 livestock animals involved. Sixty percent of depredation (565 of 943) involved cattle. Sheep were involved in 36 % of incidents (336 of 943) while goats accounted for the remaining four % (42 of 943).

While grizzly bear incidents occurred throughout the study area, they are certainly more prevalent in the southern part of the region, particularly in the Pincher Creek area. Cougars on the other hand had more claims in the northern half of the Region. Wolf activity was relatively constant up and down the eastern slopes. In 2020 there was an increase in grizzly bear claims while both wolf and cougar claims dropped (Figure 19).

Regionally, grizzly bears and wolves were generally associated with cattle claims while cougar claims were associated with sheep (Figure 20). The Cardston District does experience greater grizzly bear predation on sheep; 12 Primary claims as compared to two from cougars.

All Districts, with the exception of Blairmore, experienced both cattle and sheep depredation (Figure 21). The percentage of cattle versus sheep claims varied considerably from District to District. For example, cattle were the prime prey in the Blairmore (100%), Pincher Creek (79%) and High River (68%) Districts. Sundre-Olds (70%) and Cochrane (51%) experienced more sheep related incidents than they did cattle. Cardston and Rocky Mountain House were evenly split between the two prey species. The majority of sheep related predation involved multiple animals, ranging from two to 37 animals in a particular incident. It was common for both cougars and grizzly bears and in one case eagles to kill or injure multiple sheep during a single incident

Grizzly bears and cougars represent a significant portion of SWA compensation claims approved provincially. Between 2015 and 2020, 84 % (360 of 431) of all provincial grizzly bear claims and 79 % (199 of 251) of all provincial cougar claims originated within SWA. Conversely, only 21 % (189 of 897) of wolf related compensation claims were from SWA. Wolves are the species with the largest number of claims in the province (897), most of those occurring in northern Alberta.

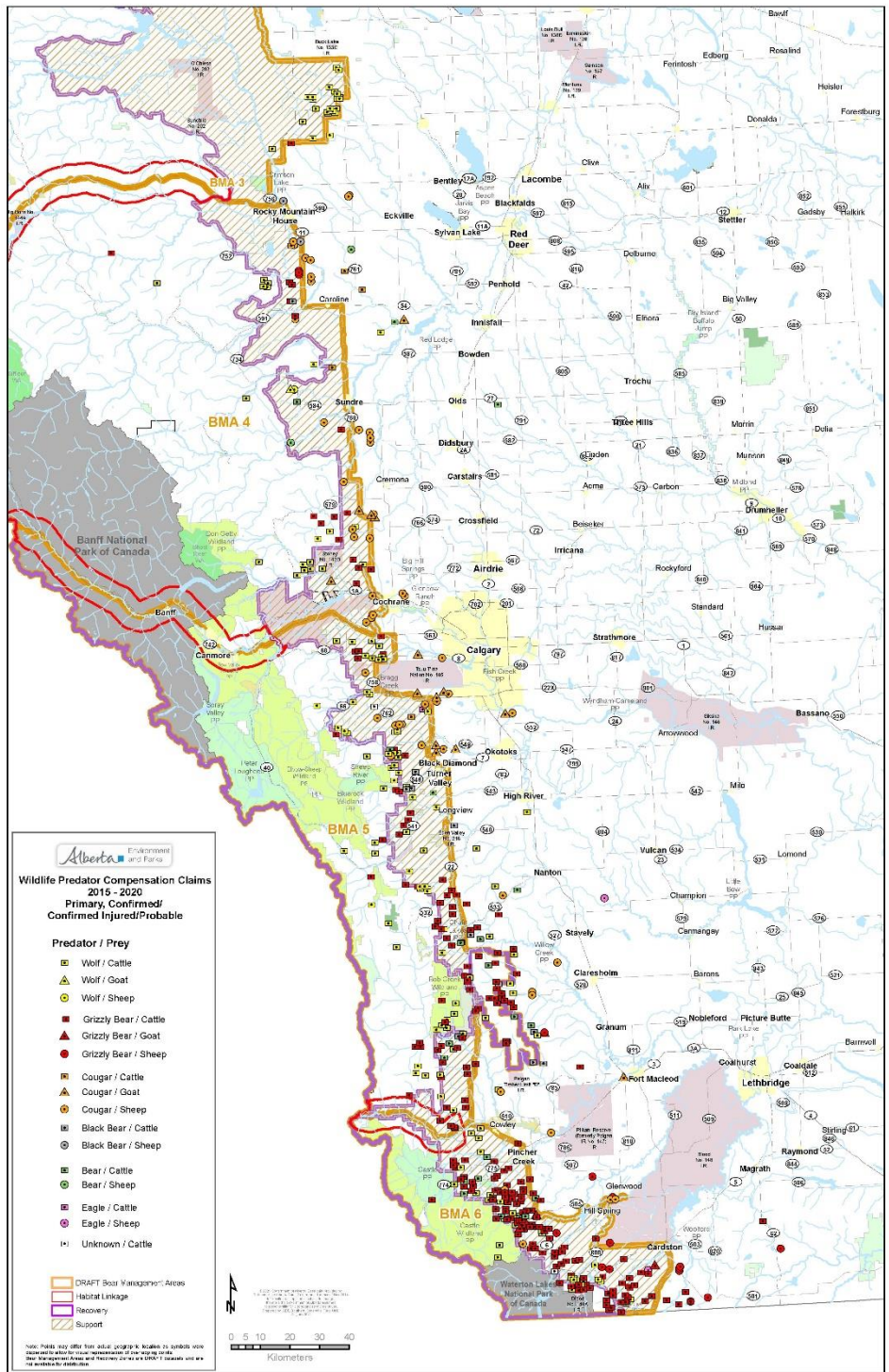


Figure 18. SWA Compensation Primary Claims, 2015 to 2020 (N=615)

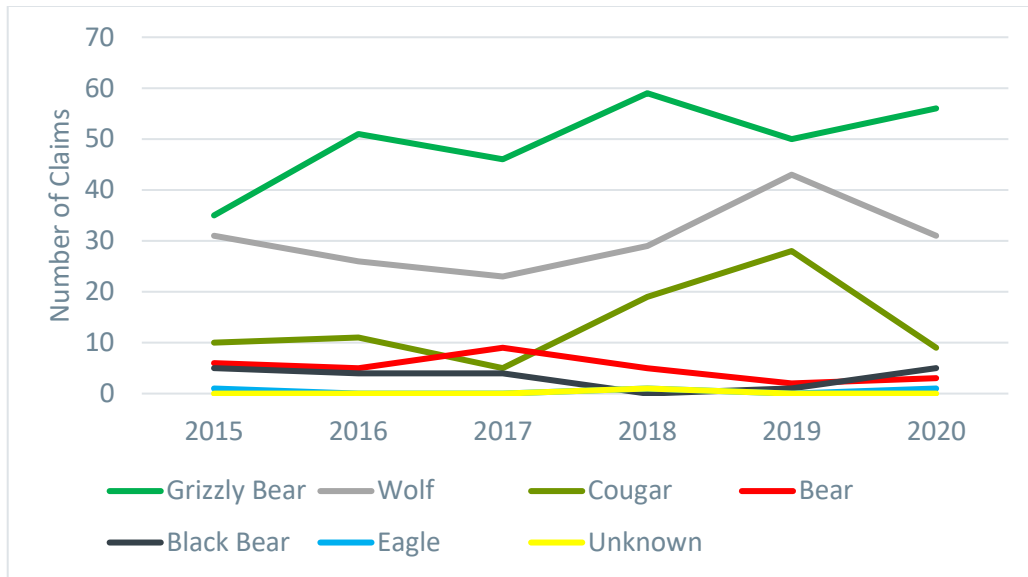


Figure 19. SWA predator specific annual Primary Compensation Claims (may include multiple animals per claim), 2015 to 2020 (N=615)

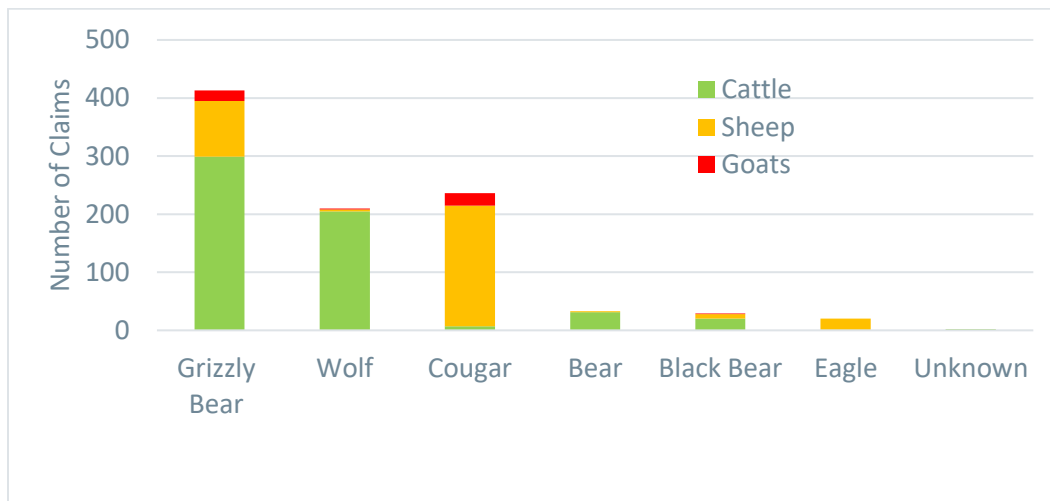


Figure 20. SWA predator / prey Compensation Claims (Primary and Secondary), 2015 to 2020 (N=943)

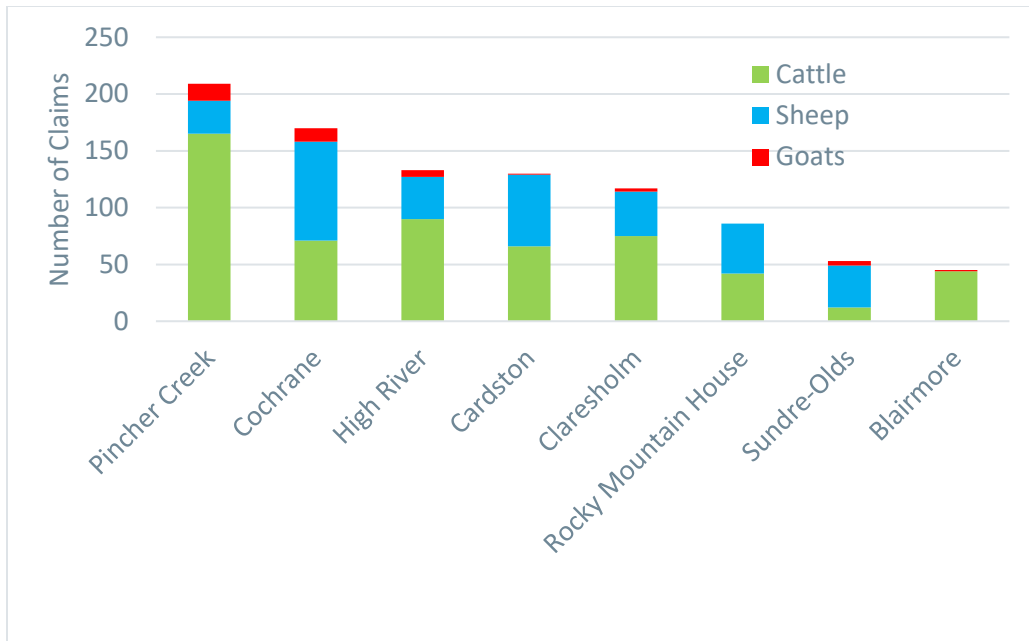


Figure 21. SWA prey specific District Compensation Claims (Primary and Secondary), 2015 to 2020 (N=943)

Regional Primary claims were most prevalent in the Summer (45% or 275 of 615) followed by Fall (32% or 197 of 615), Spring (20% or 122 of 615) and Winter (3% or 21 of 615). Predator species were active throughout the year as were their three main sources of prey (cattle, sheep and goats). At the District level though, predation varies from season to season. For example, the southern Districts of Pincher, Blairmore and Cardston experience the majority of their claims during the Summer season while the northern Districts of Cochrane, High River and Sundre are busiest in the Fall. Cattle predation tends to occur year round across most Districts in the Region while sheep predation occurs all year in Cardston and Sundre but very little in Pincher or not at all in Blairmore.

There has been \$848,090 paid out in compensation (Primary and Secondary claims) for SWA Districts between 2015 and 2020. The Pincher Creek District has accounted for almost a third of that compensation (Figure 22). Provincially, SWA has 45% (\$848,090) of the total provincial predator compensation (Primary and Secondary claims) of \$1,873,517 paid out during this period.

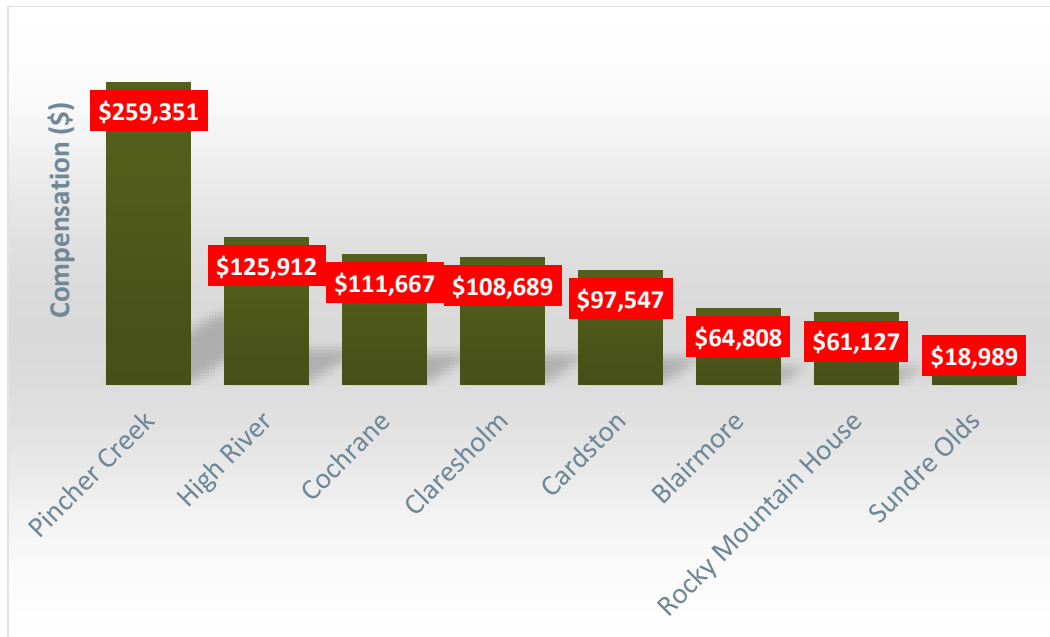


Figure 22. SWA Paid Compensation Claims (Primary and Secondary), 2015 to 2020

Conclusion

The Wildlife Predator Compensation Claim program is an important tool to allow landowners and wildlife the ability to share the same landscape. That landscape is a mix of both private and public land being utilized by both landowners for livestock grazing opportunities and as critical habitat for large predators. The program recognizes the importance of assisting landowners who experience depredation events while balancing the needs of managing for sustainable wildlife populations.

