

Russ Laroche  
Regional Executive Director  
South Area  
Nelson, BC

The East Kootenay Wildlife Association and BC Wildlife Federation along with the BC Backcountry Hunters and Anglers would like to respond to the Ministry's Region 4 Bighorn Sheep LEH Rationale document. Overall, we are deeply concerned that the Ministry has failed to properly manage bighorn sheep in the Kootenay region, along with a number of other species which are in decline. Additionally, we are even more concerned that the province continues to reach for hunting regulation changes, which have never worked in the past, while ignoring larger threats such as habitat loss and degradation as well as predation.

The Province's rationale to move from General Open Season (GOS) to Limited Entry Hunting (LEH) focuses on a number of factors, many of which are unrelated to hunting.

Generally the factors cited in the document are:

- Hunter numbers increasing; increasing road densities; improved vehicle capabilities; technological advances; human disturbance; lack of refugia; age of harvest

The document infers that moving from GOS to LEH will remedy the situation. We contend that based on the information provided there is little justification within the document that LEH will either trivially or significantly improve the situation for bighorn in the Kootenay region as evidenced by the most recent research and the Kootenay region's history of managing bighorn sheep to zero.

## Assiniboine Sheep

We will use Assiniboine Sheep as a case study to compare the rationale provided by the Ministry to move from GOS to LEH. The Assiniboine Sheep population occurs within Assiniboine Provincial Park and Banff National Park, spending the majority of their time in Banff National Park. This population has significant refugia from hunting and occurs entirely within protected areas. Per the Kootenay Region Bighorn Sheep Management Plan, the Assiniboine sheep population is currently estimated at 44 sheep, the lowest documented on record and less than half of the historical upper range of 90. To access this population hunters are required to hike-in or horseback at least 40 kms due to a road closure and provincial as well as national park boundaries. There is absolutely no motorized vehicle access in this area. Due to this population occurring within both a National and Provincial Park human disturbance should be considered low. This area sees fewer than 5 hunters per year, and as a result human disturbance from hunters is extremely low. There is no hunting in the National Park where the sheep spend most of their time. This hunt has not been a GOS for decades, and has instead been managed

through Limited Entry Hunting only where the Ministry has intentionally failed to release enough LEH authorizations to harvest even a fraction of the allocation. However, despite LEH regulations, as well as refugia from hunting, no motor vehicles, and no access, this herd has declined and is currently at a record low.

Every single factor identified in the Ministry's Region 4 Bighorn Sheep LEH Rationale are unsupported in the case of Assiniboine sheep (and a number of other PMUs), yet this population has recently declined precipitously and is currently at a record low. This is not an isolated case as sheep hunts in the Salmo Creston, Syringa Park and Phillips Creek have all been on LEH for decades and all those populations have recently declined precipitously as well.

Additionally, the Provincial Bighorn Harvest Procedure which recommends closing the season if there are <75 sheep observed has been ignored by the Ministry in the Assiniboine. Finally, the Ministry has made no attempt to either follow the provincial policy or restore this sheep population through management levers, particularly habitat restoration in the area.

The inferences made in the Ministry's proposal and the rationale to move from GOS to LEH are not consistent with what is being observed. Next, we would like to focus in on what's important to sheep as it relates to hunting.

## Biological Factors

We were concerned with the age of harvest as Festa-Bianchet has demonstrated the effect of harvesting young, fast growing rams on population dynamics and noticed that the Ministry has cited this work and made inferences about the results. In particular the sentence in the rationale that "horn annuli counts has steadily increased within the Kootenay region over the past 40 years, with an average mean age of 8.2 years since 2009, similar to observations from Alberta."

The principal concern at this time with regards to Festa-Bianchet's work is the impact of harvesting sheep <8, before they have the opportunity to participate in the rut, and the long-term consequences to genetics and population dynamics.

At 8.2 years of age, BC's age structure is significantly better than Alberta where average age at harvest has gone from about 6.8 to 7.5 years due to more recent changes made to avoid harvest of 4-5 year old rams.

The data in Alberta from 1974-2011 shows the proportion of 4 or 5 year old rams harvest declined from ~25% to 10% due to genetic effects of selection. Currently, and over the past 45+ years of monitoring 50% of the harvest in Alberta has always been <8. According to the Ministry's document the Kootenay region harvest of rams <8 years old is only 7%, worlds apart from Alberta where >50% is <8.

Additionally, when data for full curl bighorn hunts in BC was analyzed by Hengeveld and Festa-Bianchet in 2010 the authors did not find evidence of declines which contradicts the findings in the Ministry's paper (which did not include the data). The proportion of rams <8 years old harvested in the Kootenay Region is completely unlike the situation in Alberta.

As evidenced by the data provided and best available science the hunter harvest and resulting effect of hunting on sheep is not similar between BC and Alberta. As a result, the impacts from hunter harvest on sheep are also not similar. Drawing conclusions about the results in Alberta and comparing them to BC is scientifically indefensible.

While we recognize the harvest <8 years old is small in the Kootenay Region we are interested in working with the Ministry to create tools and initiatives to improve this.

## Social Impacts

The reality of moving from GOS to LEH is those who currently hunt sheep every year will be lucky to obtain an LEH once in their lifetime. Most of those who sheep hunt today do not harvest a ram as their interests and motivations come primarily from sheep hunting not sheep harvesting. Other sheep hunts which have moved from GOS to LEH have resulted in staggering odds which means only the long-lived and lucky applicants will have the opportunity to hunt. These LEH opportunities also result in a much more intense focus on harvesting a ram.

Additionally, the Kootenay Region has demonstrated it is unable to manage resident hunter utilization through sheep LEH hunts and has consistently failed to allow enough participation to achieve the annual allowable harvest. This issue is a decades old problem which has never been addressed for either sheep or goats in the region.

The Kootenay region is an area where hunters are passionate about the wildlife they hunt and share the landscape with. Indeed, EKWA clubs have stepped up to support habitat work and fill gaps in scientific understanding due largely to the lack of funding and capacity within the provincial government. The current unsubstantiated LEH approach will all but eliminate the ability for those who care most about these animals. Given the data the Ministry has provided, the impact on hunters, not sheep, will be tremendous.

## Conclusion

Overall, changing the hunting regulations from GOS to LEH will have little if any impact on the sheep population. Given the data provided, this is not only the opinion of the BCWF, EKWA and BC BHA - it is the opinion of ecologists. We support following the provincial harvest procedure, having a student from Festa-Bianchet's lab review the horn annuli measurements, to work with his lab in an oversight capacity with regards to harvest management and to work on solutions to reduce the number of <8 year old rams harvested.

We are extremely disappointed that the Ministry has allowed sheep populations to decline and does not have recovery plans with specific measurable goals including habitat restoration. The Kootenay region has a number of protected areas where the usual constraints related to timber supply are not an issue, making ecosystem restoration relatively easy compared to other parts of the province. We

acknowledge that the Ministry is managing cougars in parts, but this does not offset the forest ingrowth that has occurred in sheep habitat.

We are also disappointed the Ministry did not share the data which was used in the proposal, and the fact that it took months to provide this document with only weeks to reply. This has created a significant information asymmetry which is unfair.

The Kootenay Region has a history of changing the hunting regulations and offering nothing else to restore wildlife populations. The result has been a long-term decline in wildlife populations, and the Ministry continues to manage these resources to zero. The Ministry should be attempting to pull management levers that will support restoration of our wildlife resources instead of placebos that have never worked before. Given the evidence that has been provided, it does not appear that changing from GOS to LEH will help sheep, and it will definitely hurt hunters.

Moving forward, the EKWA, BCWF, and BC BHA are interested to explore other regulatory options and especially sheep restoration management levers with the Ministry that will benefit sheep, habitat and hunters. We encourage the province to engage in thoughtful and meaningful discussion with First Nations and stakeholders to develop a path forward to healthy sheep populations. We look forward to further discussion on this topic and exploring action that will help sheep.



**BACKCOUNTRY  
HUNTERS & ANGLERS**  
BRITISH COLUMBIA



***East Kootenay Wildlife Association***  
“East Kootenay Region – BC Wildlife Federation”

