

# Health and Behavior of BC's Southern Most Stone's Sheep

Newsletter #4

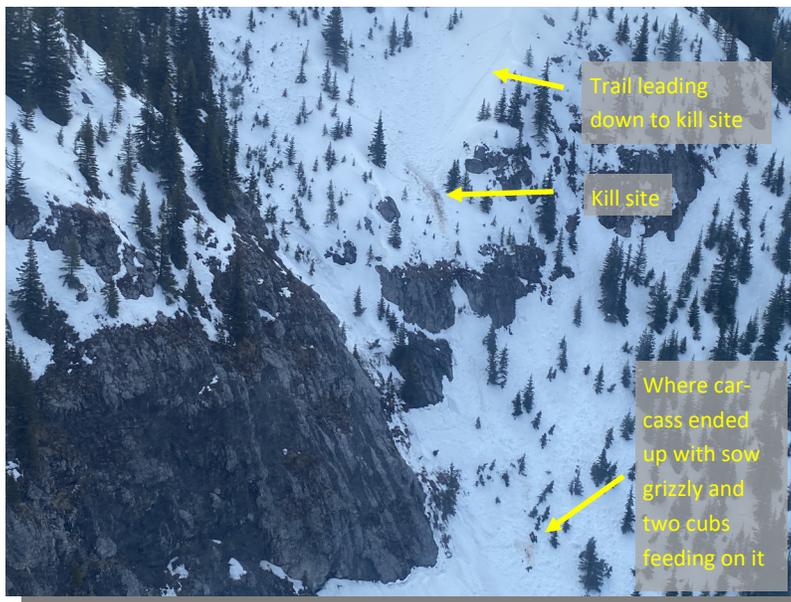
July 2022

## Background

Genetic research has confirmed that British Columbia (BC) is home to the only populations of pure Stone's sheep. Because Stone's sheep are likely rarer than originally thought, the province has a global responsibility for managing these ecologically unique subspecies of thinhorn sheep. The Dunlevy and Schooler subpopulations are the most southern functionally viable herds across Stone's sheep range. There are several wildlife examples that show mountain dwelling sub-populations at the southern extent of their range tend to be at higher risk of extirpation (e.g., grizzly bears and southern mountain caribou), suggesting there may be greater need for monitoring and potential management for these two herds.



Ewe S020S captured in the Schooler range in 2022. Following capture, crews check the overall body condition of each sheep and collect hair, blood, fecal and tonsil swab samples to check for pathogens and determine the overall health of each individual.



Mortality scene of ewe S016S, killed by a grizzly bear. Investigators noted sheep and grizzly tracks lead downhill to the red spot just above the cliff. The grizzly bears were seen on the carcass below the cliffs,

## Progress Update

At the end of year three we conducted another round of health sampling and collaring in the Dunlevy and Schooler Stone's sheep ranges. Following a positive test result for parainfluenza virus-3 antibodies from a ewe in the Dunlevy range in 2021, we continued health monitoring to determine if this result was a stand alone case or potentially a herd wide occurrence. In March of 2022 we health sampled two sheep; one ram and one ewe from the Dunlevy range, and health sampled one young ram and collared one ewe from the Schooler range. Since the project was initiated in 2020, collaring in the Schooler range has had limited success due to the low numbers of sheep located in the range.

One ewe from the Schooler range died in May 2022, killed by a sow grizzly bear with two cubs. Investigators determined the sow likely chased the ewe down the mountain catching it just before a small cliff.



## Spring lamb survey

Each spring we conduct ground surveys in the Dunlevy herd area to reduce the amount of disturbance to the animals and better determine the lamb status of each ewe. Due to the remoteness of the Schooler herd, we completed an aerial survey of the collared individuals in this herd.

Ground-based surveys of the Dunlevy range were conducted over three days by two teams in July. During the ground survey we counted a total of 41 sheep including 10 lambs, suggesting good lamb production in the Dunlevy range.

During the aerial survey in the Schooler herd on July 9th we counted 8 sheep, only one of which was a ewe, consistent with past surveys. The low number of sheep located in this area since the project was initiated in 2020 has been concerning, however we are hopeful we will find more sheep during our fall and late winter surveys.



A trail camera picture of several ewes and lambs shortly after the lambing period in spring. .



Crews use telemetry to locate collared sheep during the ground-based lamb survey. Each collar emits a very high frequency (VHF) pulse at a specific frequency that our telemetry equipment picks up and this allows us to pinpoint where the animals are while in the field.

Strategically placed trail cameras in the range allow us to remotely monitor lamb numbers and use of unique features such as mineral licks throughout the year. This data collection technique is particularly useful for monitoring un-collared sheep that use these features.

### What's next?

In February we will be conducting a full population survey in both ranges to determine the population status and overall composition. This data will allow us to determine if the Schooler range sheep population has in fact declined.

## THANK YOU!

This project's success is due to the support and dedication from many people and organizations. The Wild Sheep Society of BC and their volunteers provided the initial investment and is the reason this project is running smoothly. We would also like to thank the Wild Sheep Foundation, the Fish and Wildlife Compensation Program, the North Peace Rod and Gun Club, the Northeast BC Wildlife Fund and the Habitat Conservation Trust Foundation for their financial support, without which projects like this would not be possible.

For any additional information, please contact Robin Routledge, [robin.wssbc@gmail.com](mailto:robin.wssbc@gmail.com).

## Did you know?

**British Columbia is home to the only genetically pure Stone's sheep populations, and it's estimated that there are between 11,000 and 15,500 Stone's sheep in the province.**



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