

Ground-Based Sheep Monitoring: Caribou Mountain

Why we did it?

There is local concern that the sheep population on Caribou Mountain is declining. The current population size is unknown, as the most recent survey was completed in 2017. Further, sheep are sensitive to disturbances during the lambing period, and community members have voiced concerns about the well-being of sheep in the area due to the increased popularity of hiking trails on the mountain. By working in conjunction with the Carcross/Tagish First Nation (C/TFN) to develop an effective and sustainable ground-based monitoring program, we hope to gather population and composition information, and improve our monitoring of this population moving forward.



Observers spotting sheep on Caribou Mountain June 2023. Photo credit Anna Smith

Objectives

- Develop and pilot a standardized ground-based sheep survey methodology.
- Obtain a minimum count of sheep on Caribou Mountain.
- Determine lamb recruitment.
- Map important sheep habitat during the lambing period.

What did we find?

The number of sheep observed varied significantly among the nine ground-based surveys and was greatly influenced by weather and the location of sheep on the mountain. However, we were able to get a minimum count of non-lambs that was consistent with the aerial survey results on one occasion.

Ground Surveys

- Nine ground surveys were conducted between May and June 2023 (145 person hours)
- Sheep were observed from roadside observation posts along the Carcross and Tagish highways.
- The total number of sheep observed during each survey ranged from 4 to 30.
- The first lamb was observed on May 17.
- The highest minimum count of lambs was 7 on June 8th and non-lambs was 25 on May 25.

Aerial Survey

- 2.4 hours were spent conducting the aerial survey of Caribou and Nares Mountains on July 4, 2023.
- 24 non-lambs and 6 lambs were observed on Caribou Mountain.

What does it mean?

- Ground-based surveys may be a viable methodology for surveying the sheep population on Caribou Mountain. However, more years of comparison and continued improvement to the methodology are required.
- The 2023 minimum count of sheep on Caribou Mountain is the lowest recorded when compared to aerial surveys dating back to 2009.

What is next?

- Yukon government and C/TFN will continue to collaborate on the development of ground-based monitoring protocols.
- With considerations around lambing season, we will work to explore monitoring protocols that include better access via the hiking trail and use of drones during ground surveys.

FOR MORE INFORMATION, PLEASE CONTACT:

Jaylene Goorts – Southern Lakes Regional Biologist, jaylene.goorts@yukon.ca
 Tyler Obediah – C/TFN Natural Resource Coordinator, tyler.obediah@ctfn.ca

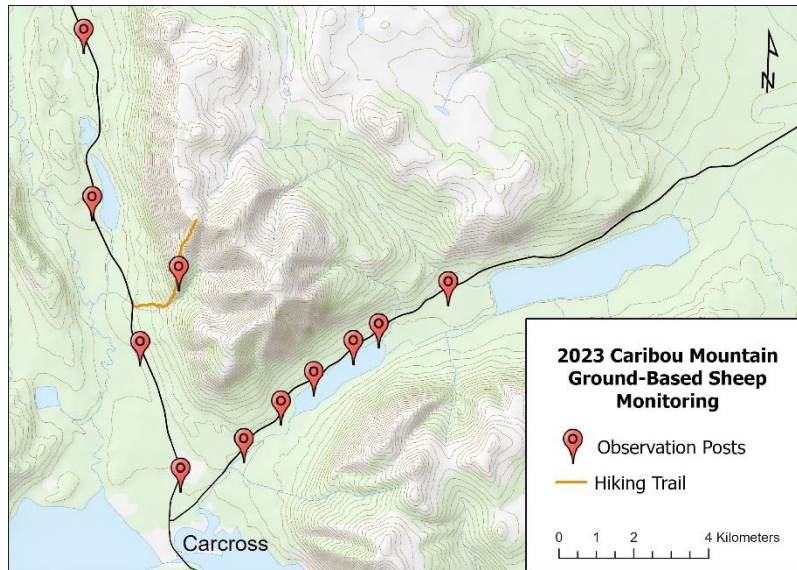


Figure 1. Observation posts for the 2023 ground-based sheep surveys on Caribou Mountain.

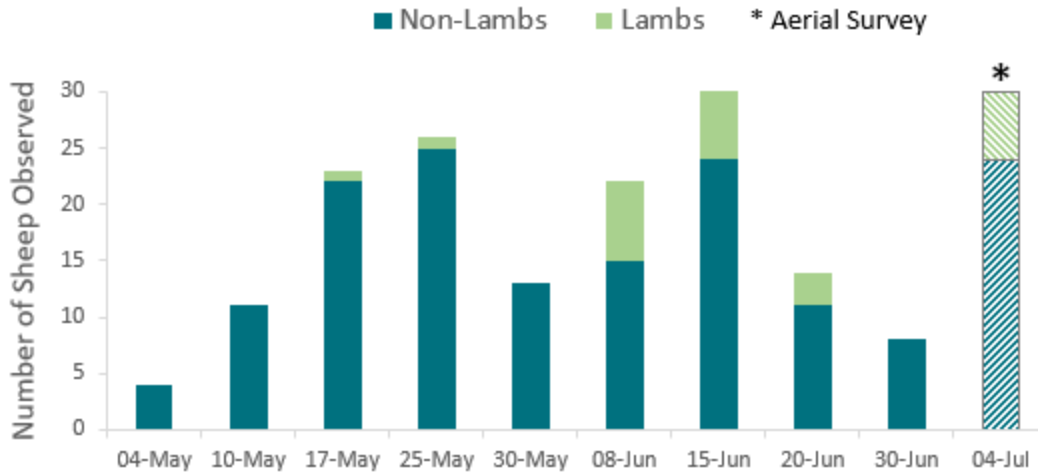


Figure 2. 2023 Ground-based sheep observations, including aerial survey results on July 4, 2023 for Caribou Mountain.

Table 1. Aerial sheep survey results for Caribou Mountain dating back to 1991. Results are based on the total observations (minimum count) of non-lambs during each survey.

| | 2023 | 2017 | 2016 | 2015 | 2013 | 2009 | 2008 | 2007 | 2006 | 1994 | 1991 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Caribou Mountain GMS 9-04 | 24 | 73 | 53 | 53 | 71 | 48 | | | | 33 | 15 |

Acknowledgements We thank the Carcross/Tagish First Nation for their collaboration on this project, particularly Amaya Cherian-Hall, Tyler ‘Obe’ Obediah, Danny Creswell, and Niko Helm for their contributions to program development. Thanks to Darrien James, Scottie James, Obe Obediah, Hannah Miller, Anna Smith, Alyssa Cuenza, Kathi Egli, Kristina Beckmann, and Treharne Drury for being observers. Special thanks to Ralph James and William Kleedehn who contributed local knowledge to the project.

FOR MORE INFORMATION, PLEASE CONTACT:

Jaylene Goorts – Southern Lakes Regional Biologist, jaylene.goorts@yukon.ca
 Tyler Obediah – C/TFN Natural Resource Coordinator, tyler.obediah@ctfn.ca

