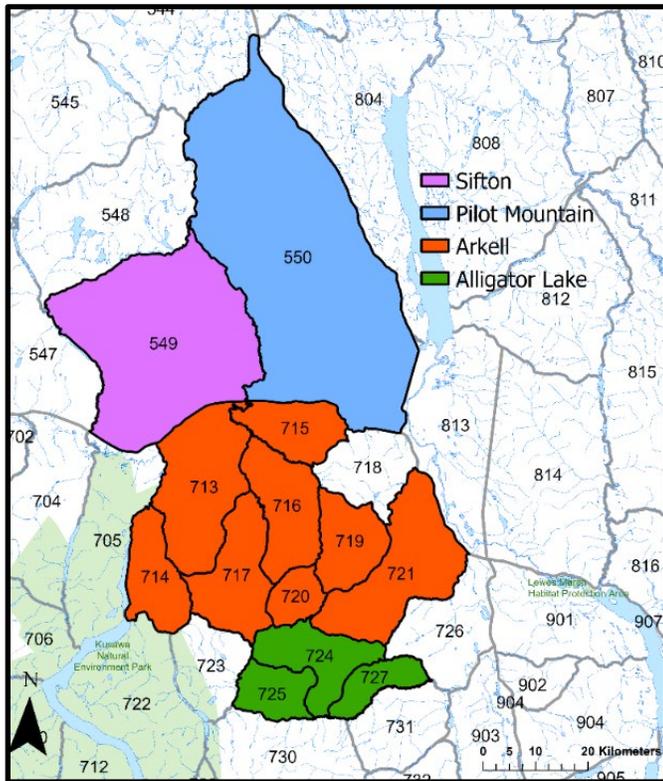


2024 Sheep Survey: Arkell, Pilot Mountain, Alligator Lake & Sifton



A minimum count, aerial sheep survey of four Sheep Management Units (SMU) was flown in July 2024 to estimate abundance, distribution, lamb recruitment and adult sex ratios. These measures, when monitored over time, are indicators of sub-population trends.

Summary of 2024 survey results

Date: July 3, 4, 6, 2024

Hours flown: 16

Minimum counts (non lamb)

Arkell: 527
Pilot Mountain: 169
Alligator Lake: 122
Sifton: 178

Lamb: Nursery

Arkell: 41:100
Pilot Mountain: 33:100
Alligator Lake: 24:100
Sifton: 43:100



Ram: Nursery
Arkell: 61:100
Pilot Mountain: 57:100
Alligator Lake: 61:100
Sifton: 66:100

Results: The non-lamb counts for Arkell, Alligator Lake and Sifton decreased by 22%, 36% and 12%, respectively, compared to the previous counts completed in 2015/2016. The Pilot Mountain non-lamb count increased by 15% from the previous count completed in 2015. A finding of declines in some SMUs was anticipated, given that similar and more pronounced declines were detected in surveys conducted in the Southwest and Kluane regions in 2022 and 2023.

Over time, an average lamb recruitment of 25 lambs per 100 nursery sheep is considered necessary for a stable population; smaller ratios suggest a decline. The recruitment rates for Arkell, Pilot Mountain and Sifton were above the threshold in 2024, except in Alligator Lake, which was slightly under the threshold value. The expected adult sex ratio for unharvested or lightly harvested populations is 50 rams per 100 nursery sheep. This ratio was exceeded in all units, indicating that fewer nursery sheep were observed than expected.

Harvest: A full curl ram harvest rate of no more than 4% of the non-lamb count is recommended to avoid impacting natural ram age structure and social interactions.

- Harvest rates for Sifton (3.4%), Arkell (2.8%) and Pilot Mountain (1.8%) were below the recommended 4% maximum in 2024. Alligator Lake marginally exceeded this threshold (4.1%) in 2024.
- For each SMU, the harvested rams included individuals older than eight years in the 2023–2024 and 2024–2025 harvest seasons.



In the Yukon, ram horn growth is linked to the influence of the climatic drivers that operate on decadal and multi-decadal scales. Depending on when a ram is born, they may experience slower or faster horn growth during the years of maximum horn accretion (2 to 3 years of age). Slower horn growth means some rams tend to reach full curl at a later age. The annual average age of harvested rams fluctuates.

Average age of sheep harvested by licensed hunters



Management considerations: Between 2021 and 2023, thinhorn sheep in the Yukon, northern British Columbia and Alaska, experienced challenging weather, and climatic conditions, including high levels of winter and spring precipitation and snow accumulation. The deeper snow depths and prolonged spring snow cover adversely impacted the survival of lambs born between 2021 and 2023, resulting in fewer nursery sheep and a lower proportion of younger rams. The 2024 survey found average to high recruitment indexes for all SMUs. The winter and spring of 2024 were mild and more favorable for lamb survival.

Across thinhorn sheep range, the effects of adverse environmental conditions that affect spring snow cover are more pronounced at higher latitudes, such as in the Yukon. The frequency and magnitude of climate extremes are expected to increase. Thinhorn sheep evolved to be resilient to occasional years of challenging conditions; however, as these conditions become more frequent, sheep populations may take longer to recover.

What does this mean?

- Some sheep sub-populations in the Southern Lakes area declined, likely due to climatic factors. However, good recruitment in 2024 should support recovery.

What's next?

- The Government of Yukon and First Nation governments will continue to monitor sheep in the region.

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