

## **Spatial And Temporal Synchrony In Horn Growth Of Dall Sheep Rams In The Yukon**

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*Abstract:* Horn growth of Dall sheep (*Ovis dalli*) rams was estimated as the volume of annual increments for 8491 individuals harvested throughout the Yukon between 1974 and 2001. We observed broad synchronization, with an approximate 10-year periodicity, in patterns of horn growth throughout the Yukon. The greatest variability and coherence in horn growth among different cohorts was observed in the southwest Yukon. In the northern Yukon, less interannual variability was observed. The largest horns were from the central Yukon. These patterns of variability between different ecological and climatic regions of the Yukon are consistent with our earlier hypothesis that horn growth of Dall sheep rams is a sensitive index of climatic variability. Periodic variation in climate, which influences availability of forage productivity in alpine environments, provides a means of predicting patterns of horn growth and has implications for management of these populations.