



**Science Outreach – Athabasca  
presents...  
50,000 years of Arctic  
ground squirrels,  
volcanoes, and ancient  
DNA from Yukon Territory**



**Speaker: Scott Cocker  
PhD student and palaeoecologist  
at the University of Alberta**

<https://scocker3.wixsite.com/website>

**Date: Tuesday, September 27, 2022**

**Time: 7 PM**

**Please join the virtual session below:**

<https://us06web.zoom.us/j/83789023406?pwd=bWRpUExPQjBHa1IrdmFBL0x4YmZjdz09>

Yukon Territory is home to some of the largest ice age fossils that have lived in the last 50,000 years. These animals roamed cold and dry grasslands which expanded from Yukon Territory all the way to parts of Europe! Most people will have heard of the woolly mammoth, the steppe bison, and maybe even the Yukon horse, but we never really talk about the small animals that scurried around the feet of these giants! This talk will focus on my favourite animal, the Arctic ground squirrel. Unlike their giant counterparts, Arctic ground squirrels are still alive today and can be found in northern and southern Yukon Territory, but not in the central region around Dawson City where we find their fossil remains. Weird! These animals seem to adapt much better to the global warming that occurred 13,000 years ago which allowed shrubs to grow, and eventually dominate over the cold and dry grasslands that the mammoths thrived in. Once this mammoth dominated ecosystem was lost, so were the large animals that relied on these grasses. However, this is not the only event that the squirrels survived. Around 25,000 years ago, a huge volcanic eruption occurred in Alaska, probably one of the largest in the last 2 million years, but we don't yet understand how the animals and plants in Yukon Territory responded to this mega eruption. This talk will focus on what we currently know about the lives of Arctic ground squirrels from the last 50,000 years, how the Dawson eruption might have impacted them, and how we can use ancient DNA to help us solve these questions!



Free community event!

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