

# OCGC Seminar

## Yukon's Fossil Rush: Ice Age Mammals from Canada's North

Grant Zazula

Yukon Paleontologist

Friday, September 20<sup>th</sup>, 2019 1:00 PM

Carleton University

Department of Earth Sciences

3120 Herzberg Bldg.

Vendredi le 20 novembre 2019, 13h00

Carleton University

Département des sciences de la terre

3120 Herzberg

Since the great Klondike Gold Rush of 1898, scientists have worked with miners and First Nations people in Yukon Territory to study the incredible fossils of ice age mammals that are recovered from the North's frozen ground. Bones, teeth and skulls of woolly mammoths, extinct camels and beavers the size of black bears help paint a picture of life in the ancient Arctic and how ecosystems have changed over the millennia as a result of climate change. The exceptional preservation of Yukon's fossils are at the forefront of cutting-edge genetic research on the evolution and extinction of these fantastic beasts from the permafrost.

**Biography:** Grant completed his BA in Anthropology at the University of Alberta in 1999, with a focus on archaeology and earth sciences. In the summer of 1999, professor Charles Schweger sent him to the remote village of Old Crow in northern Yukon for the summer and told him to "Come back with a thesis project!"; a summer which dramatically changed his life. In the end, he worked on a variety of stratigraphic sections, documenting the formation and chronology of regional late Pleistocene glacial lakes and later analyzed pollen for paleoenvironmental reconstructions. That summer solidified his interests with interdisciplinary studies in the Pleistocene – combining geology, paleoecology, paleontology and archaeology to develop robust reconstructions of life in the past. For my PhD, I studied with Rolf Mathewes in the department of Biological Sciences at Simon Fraser University where he worked on Pleistocene nests of arctic ground squirrels that they recovered from permafrost exposed at placer gold mines in the Klondike goldfields near Dawson City, Yukon. Plant material preserved in these nests provided an unprecedented record of local vegetation communities through the late Pleistocene. Soon after defending his PhD in the fall of 2006 he started in his current position with the Government of Yukon where he oversees the Paleontology Program, which is largely focused on the rich record of Pleistocene mammals that are recovered across the Yukon Territory. One of his main research interests is examining how Pleistocene mammals responded to past interglacial warming events as an analog to understanding the biogeographic shifts we are currently facing with contemporary climate change.

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