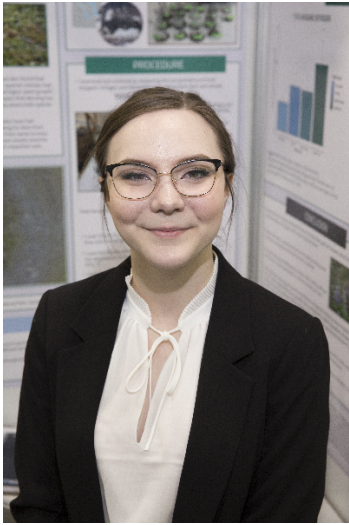


## CWSF 2019 - Fredericton, New Brunswick



### Alexandria Martin

#### Digging Deeper into Den Sites

**Challenge:** Environment

**Category:** Senior

**Region:** Manitoba Schools Science Symposium

**City:** Winnipeg, MB

**School:** Shaftesbury High School

**Abstract:** In this study, I examined impacts of Arctic foxes and Arctic ground squirrels on soil nutrients in the tundra of Northern Manitoba. I determined concentration of inorganic nitrogen and extractable phosphorus from soil samples collected from dens/colonies and paired control sites. By examining dens/colonies, we can better understand the impact that these species have on the nutrient cycling of an ecosystem, which influences other species.

#### Biography

My name is Alexandria Martin and I am a grade 11 student attending Shaftesbury High School in Winnipeg, Manitoba. As an aspiring scientist with a particular interest in ecology, marine biology, and biochemistry, I am passionate about understanding how organisms can relate to one another and to their environment. I also enjoy visual art, music, and writing in my spare time. For my project, I decided to examine the impacts of Arctic foxes and Arctic ground squirrels on the soil nutrients of an isolated region in Northern Manitoba, as minimal research had been done previously on the area and its species. I may further my research by examining differences in vegetation between dens/colonies of these species and control sites, and conduct more comparative analysis of Arctic foxes and Arctic ground squirrels in this study area. As for other young scientists considering a project, I believe the most essential aspect is finding a subject that you are truly passionate and curious about, and to keep an open mind in the process.

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040