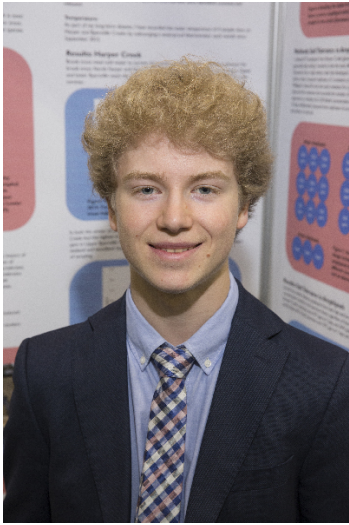


# CWSF 2019 - Fredericton, New Brunswick



## Jacob Bowman

### Can freshwater stream invertebrates adapt to road salt?

**Challenge:** Environment

**Category:** Senior

**Region:** Peterborough

**City:** Peterborough, ON

**School:** Holy Cross S.S.

**Abstract:** I have conducted a multi-year study on an urban brook trout stream, to test for effects of urban development on trout. I have found that road salt pollution is toxic to invertebrates, which are an important trout food. My study suggests that invertebrates cannot adapt to high salinity. I have also found that across the Peterborough region, streams with higher salt have fewer invertebrate species.

#### Biography

My name is Jacob and I am a Grade 11 student at Holy Cross Secondary School in Peterborough, Ontario. I am an avid fly fisherman and I am very interested in fish, wildlife, and the natural world in general. This interest prompted me to investigate the effects that humans are having on trout streams. I have been studying the Harper Creek system in Peterborough for the past 5 years, because this interesting network of creeks contains one of the last urban brook trout populations in southern Ontario. I have had success at the Peterborough Regional Science Fair presenting the results of my studies during the last 5 years. Since I began my research, humans have continued to impact trout streams through climate change, urban development, pollution, and other factors. I have decided to continue my long term research and assess the impacts of road salt pollution on Harper Creek and its inhabitants.

#### Awards

#### Value

The Beaty Centre for Species Discovery Award - Senior Sponsor: Canadian Museum of Nature	\$1 000
<b>Total</b>	<b>\$1 000</b>