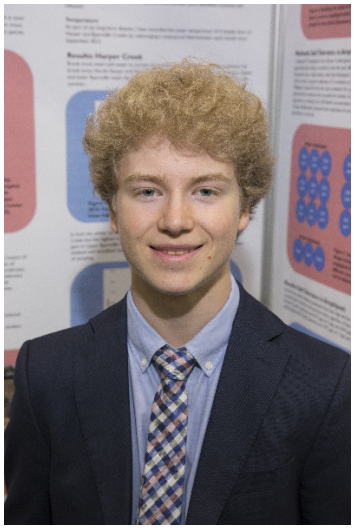
CWSF 2019 - Fredericton, New Brunswick



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
Total	$1 000