

# CWSF 2016 - Montreal, Quebec



## Emma-Lee Rhyno

### Wiggling Towards A Pollution Solution

**Challenge:** Environment

**Category:** Senior

**Region:** Chignecto West

**City:** Enfield, NS

**School:** Hants East Rural High School

**Abstract:** This project examined the remediation ability of Red Wiggler worms, *Eisenia fetida*, in soils contaminated by landfill runoff. The worms were applied to contaminated soil and differences in their behaviour as well as in the concentrations of trace and heavy metals were noted. The goal of this experiment was to identify a sustainable, cost effective soil remediation method to be used in place of excavation.

#### Biography

My name is Emma-Lee Rhyno and I am from Enfield, Nova Scotia. I am sixteen years old and am a grade eleven student in the integrated French program at Hants East Rural High School. I'm an active member of Student Council, Yearbook Committee and the Healthy Relationships for Youth program. I have been a competitive dancer since the age of eight and enjoy reading and drawing. I am a dance teacher's assistant and I work at the Superstore as well as an optometry clinic. My goal is to pursue a career in optometry. I also volunteer at the local senior's complex. This is my first CWSF and I am very excited to have this opportunity. My project has been progressing since ninth grade, beginning with examining the effects of acid rain on landfill leachate contaminants and then moving into testing the effects of landfill runoff on plant growth. This year I decided to investigate the ability that earthworms have to remediate soils contaminated by landfill runoff. My words of advice for those who are looking to start a science fair project is that you should first of all choose a topic that interests you, the rest will fall into place!

#### Awards

#### Value

The Society of Toxicology Award - Senior Sponsor: The Society of Toxicology	\$1 000
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$3 000</b>