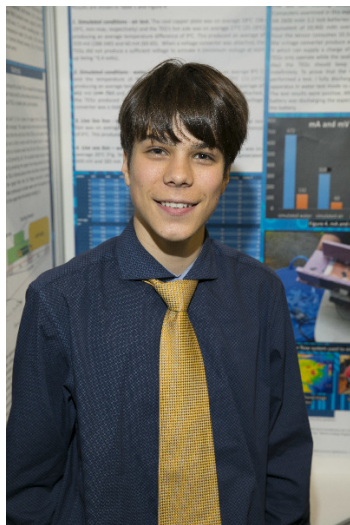


CWSF 2017 - Regina, Saskatchewan



Nattan Telmer

Powering Animal Trackers With Thermal Electric Generators (TEGs)

Challenge: Innovation

Category: Intermediate

Region: Vancouver Island

City: Victoria, BC

School: Arbutus Middle School

Abstract: This project uses thermal electric generator (TEG) technology to extend the operational life of tracking sensors that provide key information about sea lion life history, which is needed for conservation efforts. The TEGs exploit the temperature differential between a sea lion's body and the surrounding air or water to generate sufficient electricity to operate the sensors indefinitely.

Biography

My name is Nattan Telmer, I am a grade eight student at Arbutus Global Middle School in Victoria, BC. I speak English, French, and Portuguese. I speak Portuguese because part of my family is from Brazil where I was born. I go there every year and live in a rural fisherman's village on the north eastern coast where there are beaches and coral reefs and manatees. I play competitive soccer, racket sports, ski in BC's amazing mountains, sail with the racing team in Victoria, and of course surf and skim board in Brazil's warm waters. Brazil is where I first learned to love the outdoors and sports and where I became incredibly curious about nature and science, including about how to generate electricity because the power there often fails. I have won several awards in different competitions including in music and creative endeavors in and outside of school. I have participated in science and math fairs since grade four. I was very happy to win first overall in the science fair this year and love the topic of electricity.

Awards

Value

S.M. Blair Family Foundation Award - Intermediate Sponsor: S.M. Blair Family Foundation	\$750
Youth Can Innovate Awards - Intermediate Sponsor: The Gwyn Morgan and Patricia Trotter Foundation	\$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$3 500