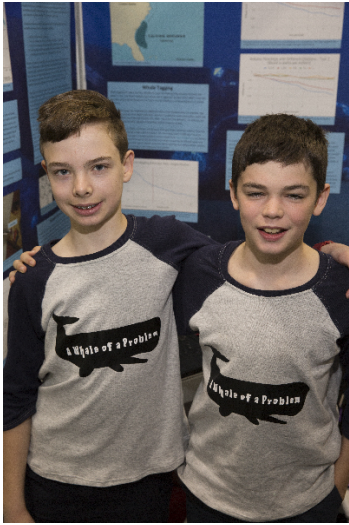


# CWSF 2019 - Fredericton, New Brunswick



## Tristan Davies, Ryan Wilson

### Whale of a Problem ? An Innovation on North Atlantic Right Whales

**Challenge:** Innovation

**Category:** Junior

**Region:** Halifax

**City:** Hammonds Plains, NS

**School:** Madeline Symonds Middle School

**Abstract:** Our project addresses the problem of North Atlantic right whales injured by fishing gear entanglements or ship strikes. We have designed a device that uses luminol to detect blood in the surrounding water. The chemical reaction between blood, luminol and hydrogen peroxide emits light, which, in our circuit, causes a detectable voltage drop. In future, this technology could be incorporated into right whales' location tags.

#### Biographies

Tristan - My name is Tristan Davies and I am a grade 7 student from Madeline Symonds Middle School in Hammonds Plains, Nova Scotia. Since I live right on the ocean, our project was inspired by a local newspaper article about a significant number of endangered North Atlantic right whales that died after being caught in fishing gear or struck by large container ships in 2017. The device we designed detects blood in the water surrounding the whale after an injury and, with further investigation, it could be adapted to send signals to whale rescue teams using radio telemetry. My favourite subjects are science and math. I also play saxophone in both the sch...

Ryan - Hello, I'm Ryan Wilson, from Madeline Symonds Middle School, Hammonds Plains, Nova Scotia. I'm twelve years old, and enjoy biology and electronics. I'm partnering with Tristan Davies on our project, A Whale of a Problem. When I heard about the catastrophic condition of the North Atlantic right whale, I started looking into what I could do about it. So Tristan and I started brainstorming ideas. Our final idea was to use luminol. Next year, I may decide to develop this project further as our current device is still a first prototype. I am really enjoying science fair, and would recommend it to anyone, even though it is a lot of work. I feel tha...

#### Awards

#### Value

Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000