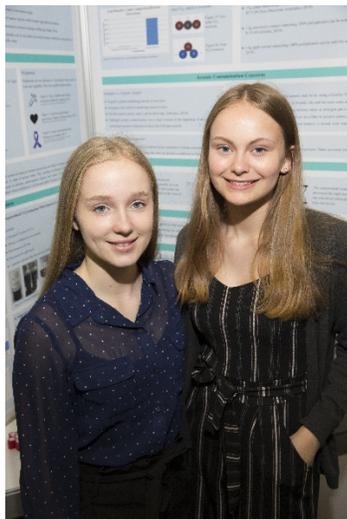


# CWSF 2019 - Fredericton, New Brunswick



## Megan Downe, Avery Nicholson

### Ulva lactuca: Subcritical Water and Supercritical CO2 Extractions

**Challenge:** Innovation

**Category:** Intermediate

**Region:** 4-H Canada

**City:** Hunter River, PE, New Glasgow, PE

**School:** Bluefield High School

**Abstract:** The objective of this project is to study the macroalgae *Ulva Lactuca* and determine potential human uses for the plant in relation to proteins and polyphenolics. Harvesting this plant would result in more breathable rivers and benefit the economy as well.

#### Biographies

Megan - My name is Megan Downe and I'm sixteen years old. This is my second time attending CWSF and I'm very excited to be back. At school, I am a member of the student council as well as the travel club. I also dedicate a lot of my time to my 4-H club. In the future, I hope to pursue a career in medicine or another science. My project was inspired when my partner and I began to notice a sulfuric odor coming from the rivers in PEI. This odor came from the decomposition of *Ulva lactuca*, an over-growing species of seaweed that causes problems for the ecosystem. We learned that *Ulva lactuca* contains valuable components such as proteins and polyphenols. ...

Avery - My name is Avery Nicholson and I am 15 years old. I play curling competitively, and am a member of my school's triple A volleyball team. In addition to sports, I am a member of 4-H. The idea of our project came from seeing the effects of an abundance of sea lettuce in the rivers of PEI. We decided to find a use for this plant in order to benefit the environment, but also improve human prosperity. In the future, I aspire to become a psychiatrist. I would advise other students thinking of doing a project to find a topic you are interested in. If you are passionate about your project, then it will not seem like a bunch of work and will be more e...

#### Awards

#### Value

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