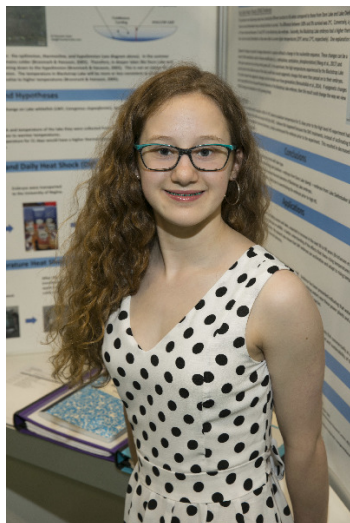


# CWSF 2017 - Regina, Saskatchewan



## Rachel Manzon

### Thermal Tolerance in Lake Whitefish Embryos

**Challenge:** Discovery

**Category:** Junior

**Region:** Regina

**City:** Regina, SK

**School:** St. Matthew

**Abstract:** I examined the ability of Lake Whitefish embryos from three different Saskatchewan lakes to survive high temperature heat shocks (HT-HS) of +9°C to +23°C above control (ambient) temperature following exposure to a low level, daily heat shock (DHS). Those embryos that received DHS were more sensitive to HT-HS and embryos from the shallow, warm lake had the highest thermal tolerance of the three lakes studied.

#### Biography

Hi, my name is Rachel Manzon and I am in Grade 8 at St. Matthew school. I am a competitive swimmer and love to be in the water. I also enjoy playing the flute, acting, and reading. Some of my accomplishments include two gold medals from my flute exams and scholarships for music festival. Science fair is definitely my favourite project of the school year, as I love to be able to investigate my own questions and learn more about a topic that interests me. This year I came up with the project Thermal Tolerance in Lake Whitefish Embryos. This project focuses on gaining insight into the potential effects of climate change on lake whitefish embryos. I found that lake whitefish are able to adapt and acclimatize to higher temperatures. If I were to continue this experiment I would add a hypoxic shock element in order to better understand the combined affect of climate change and eutrophication on lake whitefish. I believe that the most important part of choosing a science fair project is making sure you have a topic that interests you. This is my second trip to CWSF.

#### 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