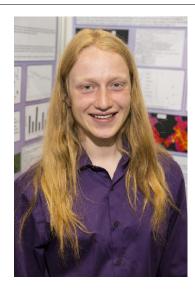




CWSF 2015 - Fredericton, New Brunswick



Kiri Daust

How Fast Does Ice Melt? Extent and Implications of Glacial Retreat in the Skeena

Challenge: Environment

Category: Senior

Region: Pacific Northwest **City:** Telkwa, BC

School: Smithers Secondary

Abstract: Globally, glaciers are retreating. Using satellite images, I determined that

Skeena Watershed glaciers have decreased by 35% since 1975, with differences in melt rate correlated with shape. I calibrated a mass-balance model based on micro-experiments and historic melt and projected melt into the future for two climate projections. Models suggest from 70 - 100% decrease in glaciers by 2100, with potential impacts to aquatic ecosystems.

Biography

I love music and science. I've participated in the Smithers science fair for 10 years now, and each year it's exciting. It's hard to believe that this is my sixth and last CWSF! Last year, I had the honour of participating in the Taiwan International Science Fair. It was so neat to see how science is a universal passion. I think that science should be used to understand nature and the world around us. I have taken grade 10 violin, and love playing dramatic classical music. I play with some local orchestras, recently performed a solo with the PGSO, and went on an amazing tour with the National Youth Orchestra of Canada last summer. Baking is also a passion. I love the science and feel (and taste) of bread, and am trying to improve my gluten-free baking. I lived the first eight years of my life in a 300 square foot log cabin on François lake two hours from town, with no running water or electricity, which I think has helped me appreciate nature. I'm super excited to be attending Quest University in the fall, and I hope to have a career that allows me to teach and research.

| Awards | Value |
|--|----------|
| Statistical Society of Canada Award - Senior | \$1 000 |
| Sponsor: Statistical Society of Canada | |
| Excellence Award - Senior - Silver Medal | |
| Sponsor: Youth Science Canada | |
| Dalhousie University Faculty of Science Entrance Scholarship | \$2 500 |
| Senior Silver Medallist - \$2500 Entrance Scholarship | |
| Sponsor: Dalhousie University, Faculty of Science | |
| UBC Science (Vancouver) Entrance Award | \$2 000 |
| Senior Silver Medallist - \$2000 Entrance Scholarship | |
| Sponsor: The University of British Columbia (Vancouver) | |
| University of New Brunswick Canada-Wide Science Fair Scholarship | \$2 500 |
| Silver Medallist - \$2500 Entrance Scholarship | |
| Sponsor: University of New Brunswick | |
| University of Ottawa Entrance Scholarship | \$2 000 |
| Senior Silver Medallist - \$2000 Entrance Scholarship | |
| Sponsor: University of Ottawa | |
| Western University Scholarship | \$2 000 |
| Silver Medallist - \$2000 Entrance Scholarship | |
| Sponsor: Western University | |
| Total | \$12 000 |



