

ESPC 2014 - Windsor (Ontario)



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Feeding the Bumblebees: Analysis of Fatty Acids from Peace River Pollen

Défi: Environnement

Catégorie: Sénior

Région: Northern British Columbia

Ville: Charlie Lake, BC

École: North Peace Secondary

Sommaire: Bumblebee populations are declining. Due to habitat loss and the invasion of introduced plants, native plants co-evolved with bumblebees are in decline also. Fatty acids found in pollen are important to bee development, nutrition and reproduction. Can introduced plant pollen match the fatty acid profiles of the native plant pollen? Do introduced plants have the same levels of total fatty acids as native plants?

Biographie

I am a grade 11 student in Northern British Columbia. I have a passion for skiing and playing the piano. Skiing is my physical release and piano is my stress release. My life has revolved around science fair since grade 1. I have always been encouraged to ask questions about topics that interest me. In grade 6 I became interested in bees when I heard of worldwide declines. That year I inventoried local pollinators, and the following year, I did a statistical study of the size of pollen collected by local bumblebees. This led me into wanting to know the nutritional levels of pollen. In 2011/2012 I collected pollen and determined the protein levels. This year I developed a fatty acid profile based on native plants that bumblebees evolved with and compared it to introduced plants. In future research I would like to look into the scents of lipids in different pollen samples.

Prix

Valeur

Prix d'excellence - Senior - Médaille d'or Commanditaire: Sciences jeunesse Canada	700,00 \$
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Médaille d'or, sénior - Bourse d'admission de 5 000 \$ Commanditaire: Université Dalhousie, Faculté des sciences	5 000,00 \$
Prix d'admission en sciences de UBC (Vancouver) Médaille d'or, sénior - Bourse d'admission de 4 000 \$ Commanditaire: The University of British Columbia (Vancouver)	4 000,00 \$
Bourse d'admission de l'Université du Manitoba Médaille d'or, sénior - Bourse d'admission de 5 000 \$ Commanditaire: Université du Manitoba	5 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaille d'or, sénior - Bourse d'admission de 4 000 \$ Commanditaire: Université d'Ottawa	4 000,00 \$
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Total	22 700,00 \$