

2020 CCUBC Graduate Student Research Prize

Adam Blake

Simon Fraser University, Burnaby, BC

[Polarization of foliar reflectance – novel host plant cue for insect herbivores \(PDF\)](#)

[Adam Blake Nomination Letter](#)

[Dr. Gerhard Gries letter of Support for Adam Blake \(PDF\)](#)

Adam J. Blake completed a MSc degree at the University of Alberta before joining Dr. Gerhard Gries's lab at Simon Fraser University for his PhD in 2012. His PhD project investigates the use of polarized light as a host location and selection cue in phytophagous insects, focusing on the cabbage white butterfly (*Pieris rapae*) as a model organism. To maximize their fitness insects must choose between hosts using olfactory, tactile and visual cues. The study of visual cues in host selection has focused on the spectral characteristics of host plants despite the fact that there is often greater variation in polarization characteristics. The aim of his PhD research was to demonstrate that insects use this sensitivity to polarized light as part of the larger host plant template. This aim was fulfilled with the publication of his paper "Polarization of foliar reflectance – novel host plant cue for insect herbivores". Adam will be defending his PhD this December (2020), and will continue on in the Gries lab in the Department of Biological Sciences at Simon Fraser University as a post-doctoral research fellow. He will be applying his considerable expertise in insect vision and polarized light to new systems including biting flies, mosquitos, and click beetles.

