

# CWSF 2012 - Charlottetown, Prince Edward Island



## Adamo Young

### War of the Wasps: comparing the parasitism effectiveness of the wasps *D. insular*

**Challenge:** Environment

**Category:** Intermediate

**Region:** Ottawa

**City:** Ottawa, ON

**School:** Lisgar C.I.

**Abstract:** My project is a study of the parasitism effectiveness of the wasps *Microplitis plutellae* and *Diadegma insulare* in controlling the invasive crop pest Diamondback moth (*Plutella xylostella*) at different host densities. Both kinds of wasps were exposed to different densities of the host in the laboratory, and the effectiveness of each wasp in parasitizing the Diamondback population at each density was evaluated and compared.

#### Biography

I have always been passionate about biology. When I was younger, I used to search for insects in my backyard. I joined the local Nature club when I was 10, and started participating in the Ottawa Regional Science Fair at the age of 12. My past experiments have involved using earthworms for soil toxin detection, analyzing the behaviour and navigation algorithms of earthworms, and exploring the effects of *D. insulare* parasitism on the food consumption and growth of its diamondback moth host. I received various awards for these projects in the past, including a first and second place. I plan to continue researching pests and biocontrols. I am considering doing field studies, of the diamondback moth or a different pest, during the summer. I am interested in going to university and pursuing a biology career in the future. My advice to other students attempting science fair projects, especially biology projects, is to persevere and be patient. Living things are complex and difficult to predict: there are so many variables that oftentimes it seems that the data being generated is inconclusive and meaningless. After careful experimental design and disciplined execution, accurate and useful results can be produced.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$300
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$1 300</b>