

THE PURDUE LECTURE HALL SERIES

Wednesday, May 6th @ 7pm

Topic: Weevil hunter: the highs and the lows of working with the largest group of beetles

Guest Speaker: Emily Justus, PhD candidate, College of Science

I am most interested in the factors influencing host-finding behavior in pests. My masters thesis focused on the behavior of the carrot weevil, a devastating pest of carrots, parsley, and celery. Carrot weevils have eluded sustainable management for decades; however, behavioral manipulation could offer an alternative management strategy. I found that carrot weevils orient towards chemical cues produced by the plants and that these cues were dominated by two groups of chemicals: monoterpenes and sesquiterpenes. My research project at Purdue focuses on how the genetics of the host plant and the microbiome of the soil may impact the chemical cues released by the plant and in turn, how these changes alter carrot weevil host finding behavior.

In addition to research, I am very passionate about extension and outreach. During my masters I had the opportunity to interact with growers, helping them address real-world problems. Throughout my short career I have been involved in outreach at many different levels, and truly enjoy sharing my love of insects with other people.

Background: Emily is currently a PhD student in the Department of Entomology at Purdue in the Long Lab. She is originally from Plainfield, IN where she went to Plainfield High School and continued on to study at Purdue earning her Bachelor's in Entomology. She worked in the Long Lab at Ohio state University as a Masters student studying the host-finding behavior of the carrot weevil. In August 2019 she matriculated into the Entomology PhD program at Purdue.



Emily Justus,
PhD Student



Adult carrot
weevil!



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YEARS OF GIANT LEAPS