# **Dylan A. Tussey**

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# Profile

A broadly trained entomologist with experience in both laboratory and field research. Passionate about developing novel and sustainable methods of pest management in response to invasive species and climate change.

# Education

PhD Entomology 2017-2021

Dissertation: Improving field performance of sterilized *Aedes aegypti* mosquitoes for use in sterile insect technique University of Florida, Gainesville, FL

M.S. Entomology 2015-2017

Thesis: Sublethal effects of cold on emerald ash borer (Coleoptera: Buprestidae), focusing on nutrition levels and dispersal capabilities University of Minnesota Twin Cities, St Paul, MN

## B.S. Environmental Studies

2009-2013

Concentration: Ecology and Environmental Biology University of North Carolina at Asheville, Asheville, NC

# Related Experience

#### RESEARCH ASSISTANT

#### UNIVERSITY OF FLORIDA, GAINESVILLE, FL

**AUGUST 2017 - PRESENT** 

- Reared and maintained colonies of mosquitoes
- Designed and conducted experiments to improve sterile male performance
- Coordinated with state and federal agencies to implement pilot programs

## RESEARCH ASSISTANT

#### UNIVERSITY OF MINNESOTA, ST. PAUL, MN

**JANUARY 2015 - JULY 2017** 

- Collected infested trees in urban and forested areas, collaborated with U.S. Forest Service
- Designed and conducted experiments on nutritional analysis of emerald ash borer
- Used custom flight mill equipment and software to collect dispersal capacity data

#### **RESEARCH TECHNICIAN**

#### MOUNTAIN HORTICULTURAL CROPS RESEARCH AND EXTENSION CENTER, MILLS RIVER APRIL 2013- JANUARY 2015

- Monitored crops for insect damage and applied pesticides in test plots.
- Coordinated with various commercial growers for field trials of insecticides
- © Created informational handouts on agricultural pests and insecticide application methods.

#### SUMMER SCHOLAR

## NEW YORK STATE AGRICULTURAL EXPERIMENT STATION, GENEVA, NY

**MAY-AUGUST 2012** 

- Tested the attractiveness of multiple synthetic sex pheromones for Prionus laticollis for IPM.
- Setup, maintained and monitored insect traps for orchard IPM control programs.
- Collected data for numerous studies and recorded data into databases.

# Awards and Accomplishments

Entomological Society of America National Linnaean Games Champion team - 2019 Entomology & Nematology Student Organization Student Travel Grant- Fall 2019 University of Florida Graduate School Funding Award, University of Florida- 2017 Departmental Travel Grant, University of Minnesota- 2015-2016

# **Publications**

- **Tussey, D.A.**, B. H. Aukema, A. M. Charvoz, and R. C. Venette. 2018. Effects of adult feeding and overwintering conditions on energy reserves and flight performance of emerald ash borer (Coleoptera: Buprestidae). Environmental Entomology, 47(3): 755-763.
- Parker, C., Bernaola, L., Lee, B.W., Elmquist, D., Cohen, A., Marshall, A., Hepler, J., Pekarcik, A., ... and **D.A. Tussey.** 2019. Entomology in the 21st Century: Tackling Insect Invasions, Promoting Advancements in Technology, and Using Effective Science Communication—2018 Student Debates, *Journal of Insect Science*, 19(4): <a href="https://doi.org/10.1093/jisesa/iez069">https://doi.org/10.1093/jisesa/iez069</a>

## Selected Presentations

- **Dylan A. Tussey**, Kennith J. Linthicum, Robert L. Aldridge, and Daniel A. Hahn; Hypoxic conditions during irradiation improve sterile male performance in *Aedes aegypti*. Annual Meeting of the Entomological Society of America. St. Louis, MO, November 18, 2019.
- **Dylan A. Tussey**, Brian H. Aukema, and Robert C. Venette; Sublethal effects of cold on emerald ash borer (Coleoptera: Buprestidae): energy reserves and flight Capacity. XXV International Congress of Entomology. Orlando, FL, September 29, 2016.
- **Dylan A. Tussey**, Brian H. Aukema, and Robert C. Venette; Effects of feeding on lipid content and dispersal capability of adult *Agrilus planipennis*. 64th Annual North Central Forest Pest Workshop. Kesh-ena, WI, September 21-24, 2015.
- **Dylan A. Tussey** and Arthur M. Agnello; Comparative attractiveness of a single-component isomer vs. the racemic blend of a mating pheromone in *Prionus* root-boring beetle traps. 2012 Summer Scholars Program Undergraduate Research Poster Session. Geneva, NY, July 31, 2012.

# Teaching Experience

# **Teaching Assistant**

University of Florida, Principles of Entomology Lab

Spring 2019, Fall 2019, Spring 2020

## **Guest Lecturer**

"Medical and Veterinary Entomology"- University of Florida, Principles of Entomology Spring 2020

# Institutional and Departmental Service

# Treasurer, Entomology & Nematology Student Organization at the University of Florida 2018-2019 Academic Year

- •Managed organizations bank account
- Managed fundraising events and inventory
- Oversaw application and review process of annual travel grant

# Vice President, Frenatae, the University of Minnesota graduate student association 2016-2017 Academic Year

- Assisted in organizing student meetings
- Managed graduate student organization website

# Professional Society Memberships

Entomological Society of America (ESA) - 2015-Present Florida Mosquito Control Association (FMCA)- 2018-Present

# Outreach and Volunteer Experience

# Florida State Fair- UF Entomology Department Booth: February, 2020

Ran educational booth with over 200 visitors of all ages.

# Branford Public library, Branford, FL-Library Summer Camp: June 2019

Gave a hands on presentation to 30 children ranging from 5-10. Taught children basic insect and spider facts using live specimens.

## Bug Camp, Gainesville FL- Mosquito Experiment: July 2018

Lead a summer camp activity for children ages 12-16, teaching them the basic design of a scientific experiment. Students worked with mosquitoes to form a hypothesis, collect and analyze data, and discuss results.

## Ocali Country Days, Ocala, FL- Entomology Booth: November 2017

Operated an educational booth on insect biology, ecology and careers in entomology.

#### Minnesota Shade Tree Short Course: March 2016

Served as a moderator for sessions presenting applied research on shade tree pest and disease management to state and private land managers

## Minnesota State Fair- UMN Entomology Department Booth: August, 2015 & 2016

Annual event with educational games and display animals for children, as well as information on urban and agricultural pests for adults.

# References

- Dr Daniel A Hahn, University of Florida, Professor of Entomology (352)665-0557 dahahn@ufl.edu
- •Dr Robert C Venette, USDA- Forest Service, Research Biologist (651)649-5028 rvenette@fs.fed.us
- Dr Brian H Aukema, University of Minnesota, Professor of Entomology (612)624-1847 bhaukema@umn.edu
- •Dr Jim Walgenbach, North Carolina State University, Professor of Entomology (828)684-3562 jim\_walgenbach@ncsu.edu