

Jacob T. Wittman

PHD STUDENT

1980 Folwell Avenue, St. Paul, MN

☎ 319 651 9490 | ✉ wittja01@gmail.com | 📷 wittja01 | 🌐 wittja01 | 🐦 wittja01

Education

University of Minnesota

St. Paul, MN

PHD ENTOMOLOGY, CONCENTRATION: FOREST ENTOMOLOGY, MINOR: BIOSTATISTICS

Sept. 2018 - 2022 (anticipated)

- GPA: 3.883
- Dissertation Topic: Emerald ash borer biocontrol modeling

University of Minnesota

St. Paul, MN

MSC ENTOMOLOGY, CONCENTRATION: FOREST ENTOMOLOGY

Jun. 2016 - Sept. 2018

- GPA: 4.00
- Thesis Title: Effects of host type and food deprivation on the movement behavior of late-instar larvae of gypsy moth *Lymantria dispar* (Lepidoptera: Erebididae)

Luther College

Decorah, IA

TEACHING LICENSE IN SECONDARY EDUCATION BIOLOGY

Sept. 2012 - Dec. 2013

- GPA: 4.00

Luther College

Decorah, IA

BA IN BIOLOGY & ENVIRONMENTAL STUDIES

Sept. 2008 - May 2012

- GPA: 3.68

Publications

1. Hallinen, MJ, JT Wittman, and BH Aukema (2020). Factors associated with diversity and distribution of buprestid prey captured by foraging *Cerceris fumipennis* (Hymenoptera: Crabronidae). *Environmental Entomology* (In review).
2. Wittman, JT and BH Aukema (2020). A guide and toolbox to replicability and open science in entomology. *Journal of Insect Science* **20**(3), 1–9.
3. Short, M, K Chase, T Feeley, A Kees, J Wittman, and B Aukema (2020). Rail transport as a vector of emerald ash borer. *Agricultural and Forest Entomology* **22**, 92–97.
4. Stivers, EK, JT Wittman, and KJ Larsen (2019). A comparison of adult butterfly communities on remnant and planted prairies in northeast Iowa. *Journal of the Lepidopterists' Society* **73**(4).
5. Wittman, JT, RA Nicoll, SW Myers, PH Chaloux, and BH Aukema (2019). Characterizing and Simulating the Movement of Late-Instar Gypsy Moth (Lepidoptera: Erebididae) to Evaluate the Effectiveness of Regulatory Practices. *Environmental Entomology* **48**(3), 496–505.
6. Wittman, JT and BH Aukema (2019). Foliage Type and Deprivation Alters the Movement Behavior of Late Instar European Gypsy Moth *Lymantria dispar* (Lepidoptera: Erebididae). *Journal of Insect Behavior* **32**(1), 24–37.
7. Wittman, J, E Stivers, and K Larsen (2017). Butterfly Surveys are Impacted by Time of Day. *Journal of the Lepidopterists' Society* **71**(2), 125–129.
8. Wittman, J, A Weckwerth, C Weiss, S Heyer, J Seibert, B Kuennen, C Ingels, L Seigley, K Larsen, and J Enos-Berlage (2013). Evaluation of land use and water quality in an agricultural watershed in the USA indicates multiple sources of bacterial impairment. *Environmental Monitoring and Assessment* **185**(12), 10395–10420.

Invited Presentations

1. Wittman, JT, RA Nicoll, SW Myers, PH Chaloux, and BH Aukema (2019). *What You Eat Affects How You Move: Links Between Caterpillar Behavior and Gypsy Moth Management*. Oral presentation at the Annual Gypsy Moth Review, November 5 - 7, Seattle, WA.
2. Wittman, JT, PH Chaloux, D Lance, SW Myers, and BH Aukema (2016). *Evaluating the effectiveness of buffer zone practices in preventing the spread of gypsy moth (Lymantria dispar)*. Gypsy Moth Program Advisory Committee Meeting, November 22, St. Paul, MN.
3. Wittman, JT, PH Chaloux, D Lance, SW Myers, and BH Aukema (2016). *I Would Walk 500 Miles: Orientation and Movement Potential of Gypsy Moth Larvae in a Simulated Lumber Yard*. Oral presentation at the Annual Gypsy Moth Review, October 25 - 27, Columbus, OH.

Contributed Presentations

1. Wittman JT, K Parker, KL Ryall, PJ Silk, and BH Aukema (2019). *Using Bayesian statistical methods to estimate the effective attraction radius of a short-range sex pheromone of emerald ash borer in baited traps*. Entomological Society of America National Meeting, November 17 - 20, St. Louis, MO.
2. Wittman, JT (2019). *Replicability and open science in entomology*. Department of Entomology, University of Minnesota, October 22, St. Paul, MN.
3. Wittman, JT, JJ Duan, RC Venette, and BH Aukema (2019). *Effect of cooling rate on survival of *Spathius galinae* when exposed to sub-zero temperatures*. North Central Forest Pest Workshop, September 23 - 26, Lisle, IL.
4. Wittman, JT, and BH Aukema (2018). *Effects of host foliage on the movement behavior of larvae of gypsy moth (*Lymantria dispar*)*. Entomological Society of America National Meeting, November 11 - 14, Vancouver, British Columbia, Canada.
5. Wittman, JT, PH Chaloux, SW Myers, and BH Aukema (2018). *Keeping gypsy moth where they are: Investigating how far gypsy moth larvae can move*. Western Forest Insect Work Conference, March 26 - 29, Denver, CO.
6. Wittman, JT, SW Myers, PH Chaloux, and BH Aukema (2017). *Evaluating gypsy moth (*Lymantria dispar*) larval movement potential and effective barriers limiting their movement*. Entomological Society of America National Meeting, November 5 - 8, Denver, CO.
7. Wittman, JT, SW Myers, PH Chaloux, and BH Aukema (2017). *Supporting policy with science: Are buffer zones around wood products effective at preventing the spread of gypsy moth (*Lymantria dispar*)*. International Union of Forest Research Organizations - Forest Insects and Pathogens in a Changing Environment: Ecology, Monitoring, and Genetics, September 11 - 15, Thessaloniki, Greece.
8. Nicoll, RA, JT Wittman, SW Myers, D Lance, and BH Aukema (2016). *Do buffer zones prevent the spread of gypsy moth (*Lymantria dispar*) larvae?* Upper Midwest Invasive Species Conference, October 16-19, La Crosse, WI.
9. Wittman, JT, E Stivers, and KJ Larsen (2016). *Bees, Butterflies and Beetles: A Comparison of Remnant and Planted Prairies in Northeast Iowa*. Day of Insects, April 9, Ames, IA.

Poster Presentations

1. Hallinen, MJ, AM Kees, JL Schultz, JT Wittman, and BH Aukema (2019). *Prey diversity of foraging *Cerceris fumipennis* Say (Hymenoptera: Crabronidae) and factors influencing buprestid diversity and species distributions in Minnesota*. Entomological Society of America National Meeting, November 17 - 20, St. Louis, MO.
2. Wittman, JT, PH Chaloux, SW Myers, and BH Aukema (2018). *Developing science to support practice: Determining distances required to protect log decks from wandering gypsy moth larvae*. USDA Interagency Forum on Invasive Species, January 9 - 12, Annapolis, MD.
3. Stivers, E, JT Wittman, and KJ Larsen (2015). *A comparison of adult butterfly communities on remnant and planted prairies in Northeast Iowa*. Entomological Society of America National Meeting, 63rd Annual Meeting. November 14 - 18, Minneapolis, NM.
4. Wittman, JT, A Weckwerth, and J Enos-Berlage (2012). *Exploring the Dry Run Creek Watershed: Molecules, Microbes, and Macroinvertebrates*. Iowa Water Conference. March.

Teaching Experience

University of Minnesota

GUEST LECTURER

- Spatial and Temporal Analyses (ENT 5126)

St. Paul, MN

Feb. 2020

University of Minnesota

TEACHING ASSISTANT

- Spatial and Temporal Analyses (ENT 5126)

St. Paul, MN

Jan. 2020 - May 2020

University of Minnesota

GUEST LECTURER

- Forest Entomology (ENT 4251)

St. Paul, MN

Sept. 2019

University of Minnesota

TEACHING ASSISTANT

- Insect Biology (ENT 1005)

St. Paul, MN

Sept. 2018 - Dec. 2018

DREAM Technical Academy

SCIENCE TEACHER

- Grades 7 - 12

Willmar, MN

Jun. 2014 - Jun. 2016

Faribault High School

LONG-TERM SUBSTITUTE - BIOLOGY

- Biology (Grade 11)
- Integrated Life Science (Grade 9)

Faribault, MN

Feb. 2014 - Apr. 2014

Huntington Learning Center

TUTOR

- Science (Grades 6 - 12)
- Math (Grades 6 - 12)
- ACT (Grades 11 - 12)

Plymouth, MN

Oct. 2013 - Aug. 2014

Edina High School

STUDENT TEACHER

- Biology (Grade 11)
- AP Biology (Grade 12)

Edina, MN

Oct. 2013 - Dec. 2013

Stillwater Junior High

STUDENT TEACHER

- Life Sciences (Grade 7)

Stillwater, MN

Aug. 2013 - Oct. 2013

Software

1. Wittman, JT and BH Aukema (2019). *servosphereR: Analyze data generated from SynTech Servosphere trials*. R software package. <https://cran.r-project.org/web/packages/servosphereR/>.

Grants, Fellowships, & Honors

Marion Brooks-Wallace Graduate Fellowship

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$2000

St. Paul, MN

2020

Council of Graduate Students Travel Grant

UNIVERSITY OF MINNESOTA

- \$205

St. Paul, MN

2019

Chiang Travel Award

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$200

St. Paul, MN

2018

Characterizing dispersal of larval gypsy moth to improve quarantine regulations

MINNESOTA INVASIVE TERRESTRIAL PLANT AND PEST CENTER

- \$35,000

St. Paul, MN

2018

Chiang Travel Award

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$200

St. Paul, MN

2017

McLaughlin Gormley King (MGK) Fellowship

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$42,600

St. Paul, MN

2016 - 2017

Howard Hughes Medical Institute Teacher Scientist Fellowship

LUTHER COLLEGE

- \$12,500

Decorah, IA

2012 - 2013

Service

President

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

Student Presentation Organizer

NORTH CENTRAL FOREST PEST WORKSHOP

Volunteer

REPRODUCIBLE RESEARCH WITH R WORKSHOP

Treasurer

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

Insect Education Outreach Coordinator

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

Council of Graduate Students Representative

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

St. Paul, MN

2019 - present

Lisle, IL

2019

St. Paul, MN

2019

St. Paul, MN

2018 - 2019

St. Paul, MN

2017 - 2018

St. Paul, MN

2016 - 2017

Peer Review Service

Journals Journal of Economic Entomology

2019

Grants Council of Graduate Students Travel and Professional Development Grants

2019