

Jacob T. Wittman

PHD STUDENT

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Education

University of Minnesota

PHD ENTOMOLOGY, CONCENTRATION: FOREST ENTOMOLOGY, MINOR: BIostatISTICS

St. Paul, MN

Sept. 2018 - 2022 (anticipated)

- Dissertation Topic: Emerald ash borer biocontrol modeling

University of Minnesota

St. Paul, MN

MSC ENTOMOLOGY, CONCENTRATION: FOREST ENTOMOLOGY

Jun. 2016 - Sept. 2018

- GPA of 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: Erebidæ)

Luther College

Decorah, IA

TEACHING LICENSE IN SECONDARY EDUCATION BIOLOGY

Sept. 2012 - Dec. 2013

- GPA of 4.00

Luther College

Decorah, IA

BA IN BIOLOGY & ENVIRONMENTAL STUDIES

Sept. 2008 - May 2012

- GPA of 3.68

Publications

1. Short, M, K Chase, T Feeley, A Kees, J Wittman, and B Aukema (2019). Rail transport as a vector of emerald ash borer. *Agricultural and Forest Entomology* **In review**.
2. Hallinen, MJ, JT Wittman, and BH Aukema (2019). Factors associated with diversity and distribution of buprestid prey captured by foraging *Cerceris fumipennis* Say (Hymenoptera: Crabronidae). *Biodiversity and Conservation* **In review**.
3. 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).
4. Wittman, JT and BH Aukema (2019). Foliage Type and Deprivation Alters the Movement Behavior of Late Instar European Gypsy Moth *Lymantria dispar* (Lepidoptera: Erebidæ). *Journal of Insect Behavior* **32**(1), 24–37.
5. Wittman, JT, RA Nicoll, SW Myers, PH Chaloux, and BH Aukema (2019). Characterizing and Simulating the Movement of Late-Instar Gypsy Moth (Lepidoptera: Erebidæ) to Evaluate the Effectiveness of Regulatory Practices. *Environmental Entomology* **48**(3), 496–505.
6. 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.
7. 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.

Presentations

1. Wittman, JT, JJ Duan, RC Venette, and BH Aukema (2019). *Effect of cooling rate on survival of **Spathius gali-nae** when exposed to sub-zero temperatures*. Oral presentation at the North Central Forest Pest Workshop, September 23 - 26, Lisle, Illinois.
2. Wittman, JT, and BH Aukema (2018). *Effects of host foliage on the movement behavior of larvae of gypsy moth (*Lymantria dispar*)*. Oral presentation at the Entomological Society of America, Annual Meeting, November 11 – 14, Vancouver, British Columbia, Canada.
3. Wittman, JT, PH Chaloux, SW Myers, and BH Aukema (2018). *Keeping gypsy moth where they are: Investigating how far gypsy moth larvae can move*. Oral presentation at the Western Forest Insect Work Conference, March 26 - 29, Denver, CO.
4. 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*. Poster presentation at the USDA Interagency Forum on Invasive Species, January 9 – 12, Annapolis, MD.
5. Wittman, JT, SW Myers, PH Chaloux, and BH Aukema (2017). *Evaluating gypsy moth (*Lymantria dispar*) larval movement potential and effective barriers limiting their movement*. Oral presentation at the Entomological Society of America, Annual Meeting, November 5 – 8, Denver, CO.

6. 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)*. Oral presentation at the International Union of Forest Research Organizations - Forest Insects and Pathogens in a Changing Environment: Ecology, Monitoring, and Genetics, September 11 – 15, Thessaloniki, Greece.
7. 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)*. Oral presentation at the Gypsy Moth Program Advisory Committee Meeting, November 22, St. Paul, MN.
8. 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.
9. Nicoll, RA, JT Wittman, SW Myers, D Lance, and BH Aukema (2016). *Do buffer zones prevent the spread of gypsy moth (Lymantria dispar) larvae?* Poster presentation at the Upper Midwest Invasive Species Conference, October 16-19, La Crosse, WI.
10. Wittman, J., E Stivers, and KJ Larsen (2016). *Bees, Butterflies and Beetles: A Comparison of Remnant and Planted Prairies in Northeast Iowa*. Oral presentation at the Day of Insects, April 9, Ames, IA.
11. Stivers, E, JT Wittman, and KJ Larsen (2015). *A comparison of adult butterfly communities on remnant and planted prairies in Northeast Iowa*. Poster presentation at Entomological Society of America, 63rd Annual Meeting. November 14 – 18, Minneapolis, NM.
12. Wittman, JT, A Weckwerth, and J Enos-Berlage (2012). *Exploring the Dry Run Creek Watershed: Molecules, Microbes, and Macroinvertebrates*. Poster presentation at the Iowa Water Conference. March.

Teaching Experience

University of Minnesota

St. Paul, MN

GUEST LECTURER

Sept. 2019

- Forest Entomology (ENT 4251)

University of Minnesota

St. Paul, MN

TEACHING ASSISTANT

Sept. 2018 - Dec. 2018

- Insect Biology (ENT 1005)

DREAM Technical Academy

Willmar, MN

SCIENCE TEACHER

Jun. 2014 - Jun. 2016

- Grades 7 - 12

Faribault High School

Faribault, MN

LONG-TERM SUBSTITUTE - BIOLOGY

Feb. 2014 - Apr. 2014

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

Huntington Learning Center

Plymouth, MN

TUTOR

Oct. 2013 - Aug. 2014

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

Edina High School

Edina, MN

STUDENT TEACHER

Oct. 2013 - Dec. 2013

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

Stillwater Junior High

Stillwater, MN

STUDENT TEACHER

Aug. 2013 - Oct. 2013

- Life Sciences (Grade 7)

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

Characterizing dispersal of larval gypsy moth to improve quarantine regulations

St. Paul, MN

MINNESOTA INVASIVE TERRESTRIAL PLANT AND PEST CENTER

2018

- \$35,000

Fellowships & Honors

Chiang Travel Award

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$200

Chiang Travel Award

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$200

McLaughlin Gormley King (MGK) Fellowship

DEPARTMENT OF ENTOMOLOGY, UNIVERSITY OF MINNESOTA

- \$42,600

Howard Hughes Medical Institute Teacher Scientist Fellowship

LUTHER COLLEGE

- \$12,500

St. Paul, MN

2018

St. Paul, MN

2017

St. Paul, MN

2016 - 2017

Decorah, IA

2012 - 2013

Service

Student Competition Organizer

NORTH CENTRAL FOREST PEST WORKSHOP

Lisle, IL

2019

Volunteer

REPRODUCIBLE RESEARCH WITH R WORKSHOP

St. Paul, MN

2019

Grant Reviewer

COUNCIL OF GRADUATE STUDENTS, UNIVERSITY OF MINNESOTA

St. Paul, MN

2019

President

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

St. Paul, MN

2019 - present

Treasurer

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

St. Paul, MN

2018 - 2019

Insect Education Outreach Coordinator

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

St. Paul, MN

2017 - 2018

Council of Graduate Students Representative

FRENATAE (ENTOMOLOGY GRADUATE STUDENT ASSOCIATION, UNIVERSITY OF MINNESOTA)

St. Paul, MN

2016 - 2017