

JACOB WITTMAN



PROJECTS

- Current
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2019
- **Evaluating anisotropy in the spread of emerald ash borer (PhD)**
University of Minnesota Saint Paul, MN
Modeled the spread of emerald ash borer across North America using generalized additive models and simultaneous autoregressive models to allow communities to plan management tactics accordingly.
- 2021
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2018
- **Estimating the range of attraction of a sex-pheromone used in traps to detect emerald ash borer (PhD)**
University of Minnesota Saint Paul, MN
Designed novel trapping experiment analyzed with non-linear Bayesian regression to determine the attractive range of a sex pheromone, which is used internationally by pest managers for efficient trap placement.
- 2020
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2018
- **Forecasting overwintering mortality of a biological control agent in North America (PhD)**
University of Minnesota Saint Paul, MN
Forecast overwintering mortality of a parasitic wasp in North America using generalized estimating equation to target optimal release locations and improve establishment of this biological control agent.
- 2018
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2016
- **Determining the efficacy of regulatory requirements on limiting the spread of *Lymantria dispar* (MSc)**
University of Minnesota Saint Paul, MN
Evaluated the efficacy of regulatory requirements designed to reduce the spread of the invasive moth *Lymantria dispar* and communicated results of analysis to state and federal government employees.



EDUCATION

- Current
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2018
- **PhD., Entomology (graduate minor Biostatistics)**
University of Minnesota Saint Paul, MN
Relevant coursework: Biostatistical Inference, Statistical Methods for Correlated Data, Biostatistical Modeling and Methods, Statistical Learning and Data Mining, Data Management for Biologists, Introduction to Bayesian Analysis, Spatial Biostatistics
- 2018
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2016
- **M.S., Entomology**
University of Minnesota Saint Paul, MN
Relevant coursework: R for Natural Resource Sciences, Advanced R Programming, Statistics for Ecologists, Spatial and Temporal Analyses
- 2012
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2008
- **B.S., Biology, Environmental Studies (minor Secondary Education)**
Luther College Decorah, IA



SELECTED TEACHING EXPERIENCE

- Current
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2019
- **Private R and Statistics Tutor**
Online Wyzant Tutoring
Provide individualized R and/or statistics tutoring sessions to students ranging from high school to graduate school with an average 5/5 rating (23 ratings) over 60 hours of tutoring.
- 2016
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2014
- **Science Teacher (7 - 12 grade)**
DREAM Technical Academy Willmar, MN
Founding faculty member of charter school where I developed project-based learning curriculum for 100 students 7th - 12th grade and led school in a shared administrative structure.

CONTACT

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SKILLS

Supervised and unsupervised machine learning
Experimental design and inference
Bayesian and Frequentist statistical methods
R Programming
R Shiny Dashboards
git & GitHub
High Performance Computing with R
Basic Python
Basic SQL

For a complete list of experience, publications, presentations, and posters please visit my full CV at my [website](https://wittja01.github.io/website).

Made with the R packages [pagedown](#) and [datadrivencv](#).
Last updated on 2021-12-03.