JACOB WITTMAN

PROJECTS

2021 2018 Estimating the range of attraction of a sex-pheromone used in traps to detect emerald ash borer

University of Minnesota

Saint Paul. MN

- · Applied a novel trapping arrangement in conjunction with a non-linear Bayesian regression to elucidate the range of attraction of a sexpheromone used to trap emerald ash borer
- · Determined that the sex-pheromone is likely attractive at a range of 90
- · The range of attraction is used by managers internationally to develop efficient early-detection trap networks

2021 2019 Evaluating anisotropy in the spread of emerald ash borer

University of Minnesota

Saint Paul. MN

- · Used generalized additive models and simultaneous autoregressive models to model the spread of emerald ash borer across North America
- · Model predictions will be used by managers in North America to assess when emerald ash borer will spread to their communities and plan management tactics accordingly

2020 2018 Forecasting overwintering mortality of a biological control agent in North America

University of Minnesota

Saint Paul, MN

- · Designed experiments to assess the cold tolerance of a parasitic wasp used to control populations of emerald ash bor
- · Forecast overwintering survival of this parasitic wasp across the USA and Canada using generalized estimating equations

2018 2016 Determining the efficacy of regulatory requirements on limiting the spread of *Lymantria dispar*

University of Minnesota

- Saint Paul, MN
- · Developed experiments to determine the efficacy of regulatory requirements in lumber yards designed to reduce the spread of the invasive moth Lymantria dispar.
- · Using generalized linear models and Monte Carlo simulation, showed that current regulatory requirements were likely sufficient to reduce inadvertent movement of this insect.

EDUCATION

Current 2018

PhD., Entomology (graduate minor Biostatistics) University of Minnesota

Saint Paul, MN

2018

M.S., Entomology University of Minnesota

Saint Paul, MN

2016

2012

2008

B.S., Biology, Environmental Studies (minor Secondary Education)

Luther College

Oecorah, IA

I am a quantiative invasion entomologist specializing in biostatistics/data science, invasion biology, and teaching. I am seeking to leverage my experience managing complex ecoloogical projects, analyzing data, and communicating results to a wide variety of collaborators to find a role as a data scientist.

CONTACT

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¥ wittja01

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SKILLS

Expert in communicating technical material to nontechnical audiences

Expert in R and R Studio

GitHub/git

HPC with R

Relational Databases

Some Python and SQL

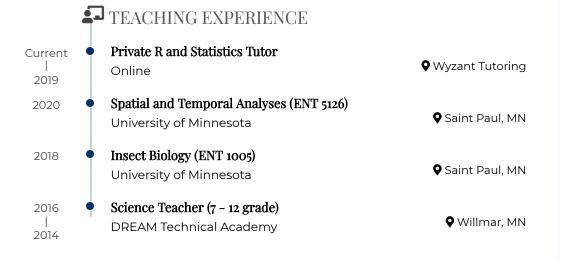
Made with the R package pagedown.

The source code is available on github.com/nstrayer/cv.

Last updated on 2021-11-10.

PUBLICATIONS Forecasting overwintering mortality of Spathius galinae in North 2021 Biological Control J. Wittman, B. Aukema, J. Duan, and R. Venette Optimizing early detection strategies: defining the effective attraction 2021 radius of attractants for emerald ash borer Agrilus planipennis **Fairmaire** Agricultural and Forest Entomology J. Wittman, P. Silk, K. Parker, and B. Aukema A guide and toolbox to replicability and open science in entomology. 2020 Journal of Insect Science J. Wittman and B. Aukema Foliage type and deprivation alters the movement behavior of late instar 2019 European gypsy moth *Lymantria dispar* (Lepidoptera: Erebidae) Journal of Insect Behavior J. Wittman and B. Aukema Characterizing and simulating the movement of late-instar gypsy moth 2019 (Lepidoptera: Erebidae) to evaluate the effectiveness of regulatory practices Environmental Entomology

These are a selection of firstauthored publications. For a complete list of publications, presentations, and posters please visit my full CV at my Google Scholar Profile.



J. Wittman, R. Nicoll, S. Myers, P. Chaloux, and B. Aukema

Both learning and teaching are life-long skills that can be employed in any position. I am passionate about learning from and teaching others.