

# Courtney Giebink

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## EDUCATION

### University of Arizona

MSc Ecology and Evolutionary Biology

August 2018 – May 2021

### University of Wisconsin-La Crosse

Biology: Environmental Science Concentration, Statistics Minor

September 2013 – May 2017

## RESEARCH EXPERIENCE

### Climate-sensitive stand-level growth and yield model

2018 - 2021

Adviser: *Dr. Margaret Evans*

- Created climate-sensitive, LMM version of a forestry growth and yield model (FVS) using the information contained in tree-ring time series and forest inventory data.

### Community responses to simulated climate change

2016 – 2017

PI: *Dr. Meredith Thomsen*

- Statistically analyzed data from a five-year study to determine how precipitation and nitrogen availability affect the biomass of several plant functional groups in a California prairie system

### Temperature-driven outbreak of waterfowl disease

2014 – 2015

PI: *Dr. Gregory Sandland & Dr. James Pierce*

- Collected data on the effect of temperature on parasite production, which was incorporated in an annual model of waterfowl disease through a temperature-dependent transmission parameter.

## PUBLICATIONS

**Giebink, C. L.**, G. M. Domke, R. A. Fisher, K. A. Heilman, D. J. P. Moore, R. J. DeRose, and M. E. K. Evans. 2022. The policy and ecology of forest-based climate mitigation: challenges, needs and opportunities. *Plant and Soil*. <https://doi.org/10.1007/s11104-022-05315-6>

**Giebink, C. L.**, R. J. DeRose, M. Castle, J. D. Shaw, and M. E. K. Evans. 2022. Tree-ring-based climatic sensitivity improves predictions of the Forest Vegetation Simulator growth and yield model. *Forest Ecology and Management*. <https://doi.org/10.1016/j.foreco.2022.120256>

Evans, M. E. K., R. J. DeRose, S. Klesse, M. P. Girardin, K. A. Heilman, M. R. Alexander, A. Arsenault, F. Babst, M. Bouchard, S. M. P. Cahoon, E. Campbell, M. C. Dietze, L. Dushesne, D. C. Frank, **C. L. Giebink**, A. Gomez-Guerrero, G. Gutierrez-Garcia, S. A. V. Gaytán, E. H. Hogg, J. Metsaranta, C. Olds, S. A. Rayback, A. Reid, M. Ricker, P. Schaberg, J. D. Shaw, and P. F. Sullivan. 2021. Enhanced forest ecosystem monitoring with tree rings for carbon accounting and climate repair. *BioScience*.

Evans, M. E. K., B. A. Black, D. A. Falk, **C. L. Giebink**, and E. L. Schultz. 2021. Growth Rings across the Tree of Life – demographic insights from biogenic time series data. In R. Salguero-Gomez & M. Gamelon (Eds.), *Demographic Methods Across the Tree of Life*. Oxford University Press.

## TEACHING AND PROFESSIONAL EXPERIENCE

### UA Sky School

*August 2019 – June 2021*

Graduate Instructor – *Rebecca Lipson*

- Place-based and inquiry-based science education programs to K-12 students.
- [Project POEM](#)

### University of Arizona

*August 2018 – May 2021*

Teaching Assistant

- Conservation Biology
- Introduction to Ecology and Evolutionary Biology Lab
- Introduction to Global Change

### Tumacácori National Historical Park

*August 2017 – August 2018*

SCA & AmeriCorps Intern-*Roger Dorr*

- Invasive plant management, fish and wildlife monitoring, water quality testing.
- Dark sky designation application.
- Science communication, including natural resource walks and a middle school science fair.

### University of Wisconsin-La Crosse

*January 2015 – May 2017*

Biology Tutor

- Teach course concepts, help with assignments, proofread essays, advise on study habits.

## ORAL PRESENTATIONS

### Invited presentation

Jun 2023	Growth and Yield Innovations Conference
Nov 2022	Forest Inventory and Analysis Stakeholder Science Meeting
Jul 2022	Project Drawdown
Dec 2021	American Geophysical Union
May 2020	Ecosystem Resilience: Ecosystem Transformation After Large-Scale Disturbance

### Contributed Presentations

Nov 2021	Society of American Foresters National Convention
Nov 2019	Forest Inventory and Analysis Stakeholder Science Meeting

## COMMUNITY OUTREACH AND ENGAGEMENT

Oct 2020	AGU Science Advocacy Days
Sep 2019	Sense of Place Excursion for Today's Teachers

## WORKSHOPS AND CERTIFICATES

Feb 2020	Introduction to Python
May 2019	Dendrochronology Intensive Summer Course Certificate
Feb 2019	Forest Vegetation Simulator (FVS) Training Certificate

Nov 2018      Geospatial Data Carpentry in R

### **HONORS & AWARDS**

Spring 2021      Galileo Circle Fellow Scholarship

Spring 2019      College of Science Award in Teaching

Spring 2017      UWL Senior of the Year: Environmental Science Concentration

Fall 2013      Wisconsin Academic Excellence Scholarship