Andrew J. Muehleisen, Ph.D.

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Education

Ph.D., Forestry & Environmental Studies Received May 2020
Yale University, New Haven, CT
Advisor: Dr. Liza S. Comita

B.S. in Evolution and Ecology Received May 2013
Minor in Engineering Sciences
Ohio State University, Columbus, OH
Magna cum Laude with Honors Distinction
Honors Research Distinction in Evolution, Ecology and Organismal Biology

Teaching Experience

Instructor of record:

Instructor of Record, ENVS 410/510 Data Management and Visualization, Univ. of Oregon Fall 2021
- Co-instructed with Dr. Lauren Hallett

Instructor of Record, EVST 251 Pests, Parasites, and Pathogens, Yale University Spring 2019
- Created and instructed through Yale's Associates in Teaching Program.

Invited guest lectures:
- *Coexistence Theory and the Storage Effect*, EEB 305/705 Plant Ecology, Yale University
- *Tropical Forests and Climate Change*, FES 752 Ecology & Conservation of Tropical Forests, Yale University

Pedagogical development:

Data Science Initiative Postdoctoral Associate, University of Oregon Summer 2020-Present
- Content strategy for new undergraduate and graduate degree programs in data science

Curriculum Development Consultant, FES 720 Introduction to R, Yale University Spring-Summer 2018
- Hired through Rosenkranz Grant for Pedagogical Advancement to redevelop FES 720 and create self-guided R tutorials using the SWIRL package

Teaching assistantship:

Teaching Fellow, FES 611a Introduction to Environmental Data Science, Yale University Fall 2019
Teaching Fellow, FES 720 Introduction to R, Yale University Fall 2019
Teaching Fellow, FES 720 Introduction to R, Yale University Fall 2018
Teaching Fellow, FES 191 Trees: Environmental Biology & Global Significance, Yale University Spring 2018
Teaching Fellow, FES 720 Introduction to R, Yale University Fall 2017
Teaching Fellow, FES 717/EEB 617 Tropical Field Ecology, Yale University Spring 2017
Teaching Fellow, FES 720 Introduction to R, Yale University Fall 2016
Teaching Fellow, FES 752 Ecology & Conservation of Tropical Forests, Yale University Fall 2015
Teaching Fellow, FES 720 Introduction to R, Yale University Fall 2015

Undergraduate mentorship:

Undergraduate Thesis Mentor, Yale University Summer 2015
Peer Research Contact, Ohio State University 2011-2013

Professional Experience

Postdoctoral Research Associate, University of Oregon Summer 2020-Present
- Joint appointment with the Institute of Ecology and Evolution and the Data Science Initiative

Data Consultant, Yale Environmental Leadership & Training Initiative Spring 2018

Field Technician, Midwest Carbon Sequestration, Purdue University Summer 2013
Lab Assistant, Aquatic Biogeochemistry, Ohio State University Fall 2011

Publications

Muehleisen, A., Schwartz, N. B., Stump, S. M., Staver, A. C. (2021). Deciduous-evergreen coexistence in tropical forests. *in prep.*

Muehleisen, A. J., Engelbrecht, B. M., Jones, F. A., Manzané-Pinzón, E., & Comita, L. S. (2021). Do experimental drought stress and species' drought sensitivity influence herbivory in tropical tree seedlings? *In review, Biotropica*

Muehleisen, A. J., Engelbrecht, B. M., Jones, F. A., Manzané-Pinzón, E., & Comita, L. S. (2020). Local adaptation to herbivory within tropical tree species along a rainfall gradient. *Ecology*, *101*(11), e03151.

Muehleisen, A., Queenborough, S. A., Alvia, P., Valencia, R., & Fiala, B. (2016). Incidence of Extrafloral Nectaries and their relationship with growth and survival of lowland tropical rain forest trees. *Biotropica*, *48*(3), 321-331.

Grants

Associates in Teaching Program, Yale University 2019
Tropical Resources Institute Endowment Fellowship, Yale University 2018
Conference Travel Fellowship, Yale University 2018
Doctoral Pilot Grant, Yale Institute for Biospheric Sciences 2015
Summer Research Fellowship, Ohio State Undergraduate Research Office 2012

Conference Presentations

Sussex Plant Biology Symposium, research talk 2019
Ecological Society of America Annual Meeting, research talk 2018
Forestry and Environmental Studies Research Day, research talk 2018
Ecological Society of America Annual Meeting, poster presentation 2016
Forestry and Environmental Studies Research Day, research talk 2015
Ohio State Undergraduate Research Conference, poster presentation 2012

Technical Proficiencies

Data Analysis: R, Python, Matlab
Remote Sensing: Google Earth Engine
Computer Science: version control with Git, shell programming
Modeling: Mathematica, coexistence theory, evolutionary stable strategies, population matrix- and integral-projection
Lab Techniques: plant hydraulics, plant foliar chemistry (LCMS)

Other Relevant Experience

Engineering Capstone Design Project, Ohio State University Winter-Summer 2012
- *Solar-Powered Anaerobic Bio-Digester*

Civil Engineering Intern, City of Sylvania, Ohio 2009, 2010