Malcolm S. Itter

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EDUCATION

Michigan State University, East Lansing, MI
PhD, Forestry & Program in Ecology, Evolutionary Biology, and Behavior, Expected April 2018
Adviser: Andrew Finley

Oregon State University, Corvallis, OR
Master of Science, Statistics, June 2013
Adviser: Cliff Pereira

Colby College, Waterville, ME
Bachelor of Arts, Major: Biology, Minor: Mathematics, December 2006

AWARDS/DISTINCTIONS

Michigan State University Distinguished Fellow

Phi Beta Kappa National Honor Society

Mu Sigma Rho National Statistics Honor Society

Best Research Talk - 2014 & 2015 MSU Forestry Graduate Student Research Symposium

Outstanding Student Paper Award - AGU Fall Meeting 2016

PUBLICATIONS

Itter, M.S., Finley, A.O., D'Amato, A.W., Foster, J.R., Bradford, J.B. (2017) Variable effects of climate on forest growth in relation to climate extremes, disturbance, and forest stand dynamics. *Ecological Applications*, **27**, 1082-1095.

Itter, M.S., Finley, A.O., Hooten, M.B., Higuera, P.E., Marlon, J.R., Kelly, R., McLachlan, J.S. (2017) A model-based approach to wildland fire reconstruction using sediment charcoal records. *Environmetrics*, **DOI:** 10.1002/env.2450

Itter, M.S., D'Orangeville, L., Dawson, A., Kneeshaw, D., Finley, A.O. (*In Prep*) Decadal-scale ecosystem memory reveals interactive effects of drought and insect defoliation on boreal forest productivity.

Itter, M.S., Finley, A.O., D'Amato, A.W., Foster, J.R., Bradford, J.B., Palik, B.J. (*In Prep*) Assimilation of forest census and tree-ring data to model growth and yield in relation to climate.

Itter, M.S., Finley, A.O., Dawson, A. (*In Prep*) Methods to estimate ecological memory in time and space.

Electric Power Research Institute (2009) Potential Impact of Climate Change on Natural Resources in the Tennessee Valley Authority Region. Chapter 5. Potential Effects of Climate Change on Forest Resources. Final Report, November 2009. Palo Alto, California.

Itter, M.S. (2006) Altering finite Markov chains to more accurately model forest succession. Honors Thesis. Department of Biology, Colby College.

PRESENTATIONS

Itter, M.S., D'Orangeville, L., Dawson, A., Kneeshaw, D., Finley, A.O. Decadal-scale ecosystem memory reveals interactive effects of drought and insect defoliation on boreal forest productivity. American Geophysical Union Annual Meeting. December 2017.

Itter, M.S., Finley, A.O., Dawson, A. Estimation and application of ecological memory functions in time and space. American Geophysical Union Annual Meeting. December 2017 (Invited).

Itter, M.S., Finley, A.O., D'Amato, A.W., Foster, J.R., Bradford, J.B., Evans, M.E.K., Palik, B.J. Assimilation of tree-ring and repeat census data to model interactions between climate and past forest dynamics. Ecological Society of America Annual Meeting. June 11, 2017 (Invited).

Itter, M.S., Finley, A.O., Hooten, M.B., Higuera, P., Marlon, J., Kelly, R., McLachlan, J. A model-based approach to wildland fire reconstruction using sediment charcoal records. Session on Alteration of disturbance-driven forest dynamics under a changing climate. American Geophysical Union Annual Meeting. December 16, 2016.

Itter, M.S., Finley, A.O., DAmato, A.W., Foster, J.R., Bradford, J.B. Variable effects of climate on forest growth in relation to climate extremes, disturbance, and forest stand dynamics. Ecology, Evolutionary Biology, and Behavior Colloquium Series, Michigan State University. November 16, 2016.

Itter, M.S., Finley, A.O., DAmato, A.W., Foster, J.R., Bradford, J.B. Assessing the dynamic effects of climate on individual tree growth across time and space. American Geophysical Union Annual Meeting. December 18, 2015.

Itter, M.S., Finley, A.O., DAmato, A.W., Foster, J.R., Bradford, J.B. Assessing the dynamic effects of climate on individual tree growth throughout the development of naturally regenerated secondary forests. Ecological Society of America Annual Meeting. August 10, 2015. (Poster)

TEACHING

Forestry 406, Applied Forest Ecology: Silviculture, Michigan State University, Instructor, Fall Semester 2016

Forestry 406L, Applied Forest Ecology: Silviculture Lab, Michigan State University, Instructor, Fall Semester 2016

Forestry 420, Field Studies, Michigan State University, Teaching Assistant, Summer Semester 2017

Statistics 511/512, Methods of Data Analysis (graduate level), Oregon State University, Teaching Assistant, Fall Quarter 2012 through Spring Quarter 2013

Statistics 351/352, Introduction to Statistical Methods, Oregon State University, Teaching Assistant, Fall Quarter 2011 through Spring Quarter 2012

PROFESSIONAL EXPERIENCE

Research Analyst, Industrial Economics, Incorporated, May 2007 through June 2011

Consultant, Statistical Consulting Practicum, Department of Statistics, Oregon State University, Winter 2013

Field Technician, Maine Natural Areas Program, May 2006 through September 2006

SHORT COURSES/WORKSHOPS

Co-Instructor: Fourth Annual Graduate Workshop on Environmental Data Analytics, National Center for Atmospheric Research, June 2017 (www2.cisl.ucar.edu/events/workshops/4th-annual-graduate-workshop-environmental-data-analytics-2017)

Organizer: Climate Ecology and Tree Growth Workshop, Harvard Forest, September 2016 (blue.for.msu.edu/CETG-workshop)

Participant: Paleofire: Data-Model Comparisons for the Past Millennium, Harvard Forest, September 2015

Participant: Flux Course, University of Colorado Mountain Research Station, July 2015

Participant: PalEON Summer Course: Assimilating Long Term Data into Ecosystem Models, University of Notre Dame Environmental Research Center, August 2014

Participant: NCAR/IMAGe Next Generation Climate Data Products Workshop, National Center for Atmospheric Research, July 2013

Participant: Macrosystems Workshop: Integrating Evidence on Forest Response to Climate Change: Physiology to Regional Abundance, Duke University, May 2013

OUTREACH/SERVICE

Presenter: Forest Forensics, Michigan State University SciFest, April 17, 2015

Presenter: The Living Breathing Forest, Michigan State University Middle School Girls Math and Science Day, March 4, 2017 (blue.for.msu.edu/sci-day)

Presenter: Knock on Wood: The Magical Mystery of Tree Growth, Michigan State University SciFest, April 8, 2017

Assistant: Greening of Detroit Day, Michigan State University, College of Agriculture and Natural Resources, June 29, 2017

Presenter: Detroit Green Corps Field Demo, MacCready Forest Preserve, July 27, 2017

Hanover Seminar Committee, Department of Forestry, Michigan State University, Fall Semester 2013 through Spring Semester 2015

President of Forestry Graduate Student Organization, Michigan State University, Fall Semester 2013 through Spring Semester 2015

Math & Science Tutor, Sudanese Education Fund, Cambridge, Massachusetts, 2007-2008

PEER REVIEW

Ecology · Journal of Ecology · Dendrochronologia · Forests

PROGRAMMING EXPERIENCE

Languages: C/C++, FORTRAN, `R`, Matlab

Statistical & Scientific: `R`, SAS, STAN, WinBugs, JAGs

GIS: QGIS, ESRI products

Scientific Typesetting: LaTeX

Operating Systems: Unix/Linux