

Michael J Koontz

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Graduate Group in Ecology
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EDUCATION

PhD, Ecology (expected 2019) University of California, Davis

Committee: Andrew Latimer, Malcolm North, Connie Millar

Dissertation: Effect of spatial patterns of vegetation on Sierra Nevada forest resilience to wildfire and bark beetle disturbance

MSc, Ecology (2014) Colorado State University

Committee: Ruth Hufbauer, Tom Hobbs, Brett Melbourne

Thesis: Eco-evolutionary consequences of multiple introductions for colonizing individuals

BSc with highest honors, Biology (2009) University of Hawaii at Hilo

Concentration: Ecology, Evolution, and Conservation Biology

FELLOWSHIPS

Plant Sciences Departmental Graduate Student Research Award (\$185,803) 2015 - 2019

UC Davis Graduate Group in Ecology Fellowship (\$58,172) 2014 - 2016

NSF Graduate Research Fellowship (\$132,000) 2013 - 2018

PUBLICATIONS

Oldfather, MF, M Britton, P Papper, **MJ Koontz**, M Halbur, C Dodge, A Flint, L Flint, and D Ackerly. 2016. Effects of topoclimatic complexity on the composition of woody plant communities. *AoB Plants*. Advance Access.

Hufbauer, RA, M Szucs, E Kasyon, C Youngberg, **MJ Koontz**, C Richards, T Tuff, BA Melbourne. 2015. Reply to Wootton and Pfister: The search for general context should include synthesis with laboratory model systems. *Proceedings of the National Academy of Sciences*. 112(44):E5904.

Hufbauer, RA, M Szucs, E Kasyon, C Youngberg, **MJ Koontz**, C Richards, T Tuff, BA Melbourne. 2015. Three types of rescue can avert extinction in a changing environment. *Proceedings of the National Academy of Sciences*. 112(33):10557-10562.

Cole, RJ, CM Litton, **MJ Koontz**, and RK Loh. 2012. Vegetation recovery 16 years after feral pig removal from a wet Hawaiian forest. *Biotropica* 44:463-471.

TEACHING EXPERIENCE

Instructor: ECOL592 Introduction to R, Colorado State University, 2014

Teaching assistant: R Bootcamp, University of California, Davis, 2015

LIFE320 Ecology, Colorado State University, 2013

LIFE102 Biology Laboratory, Colorado State University, 2012

Guest lecturer: D-RUG Meeting, "High quality plots using base R graphics" Davis, 2015

LIFE320 Ecology, "Invasion Biology" Colorado State University, 2013

Formal training: Educational psychology & instructional design, SoftwareCarpentry, 2016

AWARDS AND HONORS

College of Agriculture Ag Day Scholarship (\$1,000)	2014
Front Range Student Ecology Symposium 3rd Place Oral Presentation	2014
Colorado State Graduate Degree Program in Ecology Travel Award (\$500)	2014
Ynez Morey and Chuck Reagin Memorial Entomology Scholarship (\$1,000)	2013
Colorado State University Graduate Fellowship (\$1,500)	2012
CSU Programs for Research and Scholarly Excellence Fellowship (\$2,339)	2012
University of Hawaii at Hilo Outstanding Senior in Biology	2009
Hawaii Audubon Society Rose Shuster Taylor Scholarship (\$1,838)	2008
AmeriCorps Education Award (\$4,750)	2006

PRESENTATIONS

- Koontz, MJ**, MP North, & AM Latimer. 2016 (upcoming). Spatial heterogeneity of vegetation increases forest resistance to wildfire, and modern forests have a high potential for large, stand-replacing events. MtnClim Conference. Leavenworth, WA.
- Koontz, MJ**. 2014. The eco-evolutionary consequences of multiple introductions for colonizing individuals. BSPM Departmental Seminar & Thesis Defense. Fort Collins, CO.
- Koontz, MJ** and RA Hufbauer. 2014. The consequences of multiple introductions for colonizing individuals. Ecological Society of America Annual Meeting. Sacramento, CA.
- Koontz, MJ** and RA Hufbauer. 2014. Parsing propagule pressure: The role of multiple introductions in the colonization of novel habitats. Front Range Student Ecology Symposium. Fort Collins, CO.

PROFESSIONAL EXPERIENCE

Research Technician, Apr. 2012 to Aug. 2012	Lara Kueppers
<i>Tree seedling demography, climate change</i>	<i>University of California, Merced</i>
Research Technician, Apr. 2011 to Jun. 2011	Rebecca Cole
<i>Tropical forest succession, biogeochemistry</i>	<i>University of Colorado, Boulder</i>
Research Technician, Nov. 2009 to Jan. 2011	Creighton Litton/Christian Giardina
<i>Forest carbon cycling, global change</i>	<i>University of Hawaii, Manoa/USDA FS</i>
Research Technician, Jun. 2009 to Nov. 2009	Patrick Hart
<i>Tropical forest demography</i>	<i>University of Hawaii at Hilo</i>
Field Leader, May 2007 to Aug. 2007	Rhonda Loh
<i>Sea turtle behavior/conservation</i>	<i>National Park Service</i>

SKILLS

Technical: R, Google Earth Engine, L^AT_EX, Bayesian inference using MCMC methods
Field: Vegetation plot establishment/sampling, LiCOR soil respiration, ECH20 soil moisture
Lab: DNA extraction, PCR, gel electrophoresis, rearing of *Tribolium* populations

UNDERGRADUATE MENTORING

Charlotte Hoover (Watershed Science major)	Feb. 2013 to Aug. 2014
Kaitlyn Adkins (Biology major)	Sep. 2013 to Aug. 2014
Jenny Rickford (Environmental Engineering major)	Feb. 2014 to Apr. 2014

CURRENT COLLABORATIONS

Michael Koontz¹, Meagan Oldfather², Brett Melbourne³, and Ruth Hufbauer⁴ *Parsing propagule pressure: Simulated and experimental disentanglement of introduction size and number of introductions*

¹University of California, Davis, ²University of California, Berkeley, ³University of Colorado, Boulder, ⁴Colorado State University

Jens Stevens¹, **Michael Koontz**¹, and Chhaya Werner¹ *Local effects of aspect on vegetation productivity in California.*

¹University of California, Davis

Michael Koontz¹ and Ruth Hufbauer² *Several, small introductions of individuals to a novel environment facilitate adaptation by mitigating genetic load*

¹University of California, Davis, ²Colorado State University

VOLUNTEER/INTERNSHIP EXPERIENCE

Global Observation Research Initiative in Alpine Areas Volunteer May 2013 & July 2015
Death Valley National Park, Death Valley, CA
White Mountains Wilderness, CA

Volunteer Wildland Firefighter Dec. 2009 to Jan. 2011
Hawaii Volcanoes National Park, Volcano, HI

Native Plant Nursery Internship May 2008 to Aug. 2008
Environmental Concern Inc., St. Michaels, MD

AmeriCorps Conservation Forestry Internship Jan. 2006 to Dec. 2006
State of Hawaii Natural Area Reserve System, Maui, HI

Hawksbill Sea Turtle Project Volunteer Sep. 2005 to Dec. 2005
Hawaii Volcanoes National Park, Volcano, HI

PROFESSIONAL MEMBERSHIPS

Ecological Society of America 2014 to 2016
Northern California Botanists 2016
American Alpine Club 2016