

Michael J Koontz

NSF Graduate Research Fellow
mikoontz@gmail.com
Phone: 410.370.1815

Graduate Group in Ecology
University of California, Davis
Davis, CA 95616

www.michaeljkoontz.weebly.com

EDUCATION

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

Co-advisors: Andrew Latimer and Malcolm North

Dissertation: Spatial structure of California forests and effects on resilience to wildfire and bark beetle disturbance

MSc, Ecology (2014) Colorado State University

Committee: Ruth Hufbauer, Tom Hobbs, Brett Melbourne

Thesis: The ecological and 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

Colorado State University Graduate Fellowship (\$1,500) 2012

CSU Programs for Research and Scholarly Excellence Fellowship (\$2,339) 2012

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

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

PUBLICATIONS

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.

ORAL PRESENTATIONS

- 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> |

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

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

- Meagan Oldfather¹, Matthew Britton², Prahlad Papper¹, **Michael Koontz**³, Michelle Halbur⁴, Celeste Dodge⁴, Alan Flint⁵, Lorriane Flint⁵, and David Ackerly^{1,6} *Effects of topoclimatic complexity on the composition of woody plant communities*
(Accepted with minor revisions in AoB Plants)

¹University of California, Berkeley, ²University of Cape Town, ³University of California, Davis, ⁴Pepperwood Preserve, ⁵US Geological Survey, ⁶Jepson Herbarium

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

Mason Earles¹, Derek Young¹, Jens Stevens¹, Andrew Latimer¹, **Michael Koontz**¹, and Malcolm North^{1,2} *Effect of severe drought on tree water relations and carbohydrate storage.*

¹University of California, Davis, ²USDA Forest Service

Michael Koontz¹, Lauren Nichols¹, Jackie Fitzgerald¹, Marina LaForgia², and Robert Dunn¹ *Responses of seedlings and seed banks to simulated warming in a temperate forest.*

¹North Carolina State University, ²University of California, Davis

VOLUNTEER/INTERNSHIP EXPERIENCE

Global Observation Research Initiative in Alpine Areas Volunteer <i>Death Valley National Park, Death Valley, CA</i> <i>White Mountains Wilderness, CA</i>	May 2013 & July 2015
Volunteer Wildland Firefighter <i>Hawaii Volcanoes National Park, Volcano, HI</i>	Dec. 2009 to Jan. 2011
Native Plant Nursery Internship <i>Environmental Concern Inc., St. Michaels, MD</i>	May 2008 to Aug. 2008
AmeriCorps Conservation Forestry Internship <i>State of Hawaii Natural Area Reserve System, Maui, HI</i>	Jan. 2006 to Dec. 2006
Hawksbill Sea Turtle Project Volunteer <i>Hawaii Volcanoes National Park, Volcano, HI</i>	Sep. 2005 to Dec. 2005

PROFESSIONAL MEETINGS ATTENDED

Ecological Society of America 99th Annual Meeting, <i>Sacramento, CA</i>	2014
Front Range Student Ecology Symposium, <i>Fort Collins, CO</i>	2014
Rocky Mountain Ecologists and Evolutionary Biologists Meeting, <i>Nederland, CO</i>	2012
Conservation Genomics Meeting, <i>Hilo, HI</i>	2010
Hawaii Ecosystems Meeting, <i>Hilo, HI</i>	2010
Hawaii Conservation Conference, <i>Honolulu, HI</i>	2009
Hawaii Ecosystems Meeting, <i>Hilo, HI</i>	2009
Hawaii Conservation Conference, <i>Honolulu, HI</i>	2006

PROFESSIONAL MEMBERSHIPS

Ecological Society of America	2014 to 2016
Northern California Botanists	2016