

Michael J Koontz

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Graduate Group in Ecology
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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

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| 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

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| Research Technician, Apr. 2012 to Aug. 2012
<i>Tree seedling demography, climate change</i> | Lara Kueppers
<i>University of California, Merced</i> |
| Research Technician, Apr. 2011 to Jun. 2011
<i>Tropical forest succession, biogeochemistry</i> | Rebecca Cole
<i>University of Colorado, Boulder</i> |
| Research Technician, Nov. 2009 to Jan. 2011
<i>Forest carbon cycling, global change</i> | Creighton Litton/Christian Giardina
<i>University of Hawaii, Manoa/USDA FS</i> |
| Research Technician, Jun. 2009 to Nov. 2009
<i>Tropical forest demography</i> | Patrick Hart
<i>University of Hawaii at Hilo</i> |
| Field Leader, May 2007 to Aug. 2007
<i>Sea turtle behavior/conservation</i> | Rhonda Loh
<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, ECH2O soil moisture
- Lab:* DNA extraction, PCR, gel electrophoresis, rearing of *Tribolium* populations

UNDERGRADUATE MENTORING

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| 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} *Topographic effects on woody vegetation distributions in mixed woodland communities of central California*
(Invited to resubmit to 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 *Experimental populations colonizing novel habitat via several, small introductions defy simulation expectations and have higher establishment success*

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