

# J. Leighton Reid

Assistant Scientist of Restoration Ecology  
Center for Conservation and Sustainable Development  
Missouri Botanical Garden  
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Blog: [Natural History of Ecological Restoration](#)

## APPOINTMENTS

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Assistant Scientist, *Center for Conservation and Sustainable Development*, Missouri Botanical Garden, 2016-present.  
Special Appointment Graduate Faculty & Assistant Teaching Professor, *Biology Department*, University of Missouri, St Louis, 2015-present.  
Postdoctoral Researcher, *Center for Conservation and Sustainable Development*, Missouri Botanical Garden, 2014-2016.  
Postdoctoral Researcher, *Department of Forest Ecosystems and Society*, Oregon State University, 2013-2014.

## EDUCATION

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University of California Santa Cruz, *Ph.D. Environmental Studies*, 2013.  
Advisor: Karen D. Holl  
Sewanee: University of the South, *B.S. Environmental Studies (Magna cum laude)*, 2006.  
Advisors: David G. Haskell

## TEACHING EXPERIENCE

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- Instructor, *Restoration ecology* (BIOL 4920/6920), University of Missouri St. Louis, 2017
- Visiting faculty, *Graduate tropical field ecology*, Organization for Tropical Studies, Costa Rica, 2016
- Instructor, *Galápagos Study Abroad Program*, Woodberry Forest School, 2015
- Teaching preparation training, Oregon State University, 2014
- Visiting faculty, *Undergraduate tropical biology*, Organization for Tropical Studies, Costa Rica, 2012 (×2)
- Teaching assistant, *Restoration Ecology* (ENVS 160), UC Santa Cruz, 2010
- Teaching assistant, *General Ecology* (ENVS 24), UC Santa Cruz, 2009
- Instructor, *Southwest mountain, canyon, & river expeditions*, Colorado Outward Bound School, 2003-2004

## GUEST LECTURES

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- *Theoretical endpoints for ecological restoration*, Humboldt State University, 2017
- *Premontane tropical forest restoration*, Southern Illinois University Edwardsville, 2016
- *Premontane tropical forest restoration*, Missouri Botanical Garden (REU Program), 2015-2016
- *Tropical forest restoration research*, Organization for Tropical Studies (undergrad. & grad. Tropical Biology courses), 2007, 2011-2013, 2016
- *Natural history of Costa Rican bats*, Organization for Tropical Studies (undergrad. Tropical Biology), 2012
- *Birds, bats, and forest restoration*, UC Santa Cruz (Restoration Ecology ENVS 160), 2010
- *Faunal restoration*, UC Santa Cruz (Restoration Ecology ENVS 160), 2010, 2012
- *Conservation biology and restoration ecology*, Woodberry Forest School (AP Biology), 2010, 2012
- *Search for the Ivory-billed Woodpecker*, Woodberry Forest School (AP Biology), 2008
- *Hiking the Appalachian Trail*, Woodberry Forest School (Outing Program), 2006

- Domene, de Mattos, Gandara, **Reid** & Brancalion. Successful reintroduction of orchids and bromeliads in a young, restored tropical forest. *In review*.
- Reid** & Aronson (2017) Ecological restoration in a changing biosphere. *Annals of the Missouri Botanical Garden*. *In press*.
- Reid**, Wilson, Bloomfield, Cattau, Fagan, Holl & Zahawi (2017) How long do restored ecosystems persist? *Annals of the Missouri Botanical Garden*. *In press*.
- Hudson et al (2017) The database of the PREDICTS (Projecting Responses of Ecological Diversity in Changing Terrestrial Systems) Project. *Ecology and Evolution*. DOI: 10.1002/ece3.2579
- Holl, **Reid**, Chaves-Fallas, Oviedo-Brenes & Zahawi (2017) Local forest restoration strategies affect biodiversity recovery more strongly than does landscape forest cover. *Journal of Applied Ecology*. DOI: 10.1111/1365-2664.12814
- Fernandez-Barrancos, **Reid** & Aronson (2017) Tank bromeliad transplants as an enrichment strategy in southern Costa Rica. *Restoration Ecology* DOI:10.1111/rec.12463
- Reid**, Chaves-Fallas, Holl & Zahawi (2016) Tropical forest restoration enriches vascular epiphyte recovery. *Applied Vegetation Science* 19:508-517. (2016 AVS Editor's Choice Award)
- McAlpine, Catterall, Mac Nally, Lindenmayer, **Reid**, Holl, Bennett, Runting, Wilson, Hobbs, Seabrook, Cunningham, Moilanen, Maron, Shoo, Lunt, Vesk, Rumpff, Martin, Thomson, & Possingham (2016) Integrating plant- and animal-based perspectives for more effective restoration of biodiversity. *Frontiers in Ecology and the Environment* 14:37-45.
- Reid** (2016) Knowledge and experience predict indiscriminate bat killing intentions among Costa Rican men. *Biotropica* 48:394-404.
- Reid** (2015) Indicators of success should be sensitive to compositional failures: reply to Suganuma and Durigan. *Restoration Ecology* 23:519-520.
- Reid**, Mendenhall, Zahawi, & Holl (2015) Scale-dependent effects of forest restoration on Neotropical fruit bats. *Restoration Ecology* 23:681-689.
- Zahawi, **Reid** & Holl (2015) Passive restoration can be an effective strategy: a reply to Prach and del Moral. *Restoration Ecology* 23:347-348.
- Zahawi, Dandois, Holl, Nadwodny\*, **Reid** & Ellis (2015) Using lightweight unmanned aerial vehicles to monitor tropical forest recovery. *Biological Conservation* 186:287-295. (2015 Elsevier Atlas Award)
- Reid**, Holl & Zahawi (2015) Seed dispersal limitations shift over time in tropical forest restoration. *Ecological Applications* 25:1072-1082.
- Hudson et al (2014) The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts. *Ecology and Evolution* 4:4701-4735.
- Zahawi, **Reid** & Holl (2014) Hidden costs of passive restoration. *Restoration Ecology* 22:284-287.
- Reid**, Mendenhall, Rosales, Zahawi & Holl (2014a) Landscape context mediates avian habitat choice in tropical forest restoration. *PLoS One* 9(3):e90573.
- Reid**, Holste, Holl, & Zahawi (2014b) Does any bat box facilitate forest recovery? - Reply to Kelm. *Biological Conservation* 170:330-331.
- Holl, Stout\*, **Reid** & Zahawi (2013) Testing heterogeneity-diversity relationships in tropical forest restoration. *Oecologia* 173:569-578.
- Reid**, Holste & Zahawi (2013) Artificial bat roosts did not accelerate forest regeneration in abandoned pastures in southern Costa Rica. *Biological Conservation* 167:9-16.
- Lindell, **Reid** & Cole (2013) Planting design effects on avian seed dispersers in a tropical forest restoration experiment. *Restoration Ecology* 21:515-522.
- Zahawi, Holl, Cole & **Reid** (2013) Testing applied nucleation as a strategy to facilitate tropical forest recovery. *Journal of Applied Ecology* 50:88-96.

- Reid & Holl** (2013) Arrival  $\neq$  survival. *Restoration Ecology* 21:153-155.
- Reid, Katsuki\* & Holl** (2012a) Do birds bias measurements of seed rain? *Journal of Tropical Ecology*. 28:421-422.
- Reid, Harris & Zahawi** (2012b) Avian habitat preference in tropical forest restoration in southern Costa Rica. *Biotropica* 44:350-359.
- Harris, **Reid**, Scheffers, Wanger, Sodhi, Fordham & Brook (2012) Conserving imperiled species: a comparison of the IUCN Red List and US Endangered Species Act. *Conservation Letters* 5:64-72.
- Harris, **Reid** & Wonggor (2011) Distributional note on occurrence of *Macheiramphus alcinus* in West Papua, Indonesia. *Kukila* 15:132-133.
- Reid & Sánchez-Gutiérrez** (2010) Observaciones de dos presas nuevas de vertebrados para el momoto común (*Momotus momota*). *Zeledonia* 14:68-72.
- Reid, Harris, Martin, Barnett & Zahawi** (2008) Distribution and abundance of nearctic-neotropical songbird migrants in a forest restoration site in southern Costa Rica. *Journal of Tropical Ecology* 24:685-688.
- Reid, Evans, Hiers & Harris** (2008) Ten years of forest change in two adjacent communities on the southern Cumberland Plateau, U.S.A. *Journal of the Torrey Botanical Society* 135:224-235.
- Greene, Wilichowski, Whelan & **Reid** (2007) Distributional record of *Hemidactylus turcicus* in Baker County, Georgia, U.S.A. *Herpetological Review* 38: 483.

#### OTHER RESEARCH PRODUCTS

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- Reid** (*in press*) Virtual field trip: Arid archipelago restoration in Galápagos, Ecuador. In Aronson, Le Floch, & Aronson, editors. Desert Canopies: Reimagining Drylands.
- Reid & Betts** (2014) Monitoring populations of small mammals in the Healthy Forest Reserve Program. Technical note to USDA Natural Resources Conservation Service, Portland, OR. 63 pp.
- CentTREAD Working Group (Cesar, Cohen, Crandall, Holl, Ray, **Reid** & Tadesse) (2013) Book review: Restoring tropical forests: a practical guide. *International Forestry Review* 15:270.
- Reid, Briggs, Crandall, Eldon, Magdahl, Ohayon, Olimpi, Schweizer, Tadesse & Wang** (2012) Book review: Tropical ecology. *Quarterly Review of Biology* 87:380.
- Reid & Casallas-Pabón** (2012) Designing homes for tropical bats: scientists explore artificial roosts for rebuilding forests. *BATS* 30:7-9.
- CentTREAD Working Group (de Silva\*, Ericson\*, Geneau\*, Holl, Olivera, **Reid**, Schweizer, Sennett\* & Torres-Ortega) (2011) Book review: Regreening the bare hills: tropical forest restoration in the Asia-Pacific region. *Human Ecology* 39:841-842.
- Holl, Cornelisse, Eshete, Ferguson, Langridge, **Reid**, Schweizer, Torres-Ortega & Vasey (2009) Book review: New models for ecosystem dynamics and restoration. *Restoration Ecology* 17:562.
- Reid** (2009a) Putting bats to work for forest restoration. *Amigos Newsletter* 72:8-9.
- Reid** (2009b) Birding by bicycle: on the road in Alaska. *Birding* 41:44-50.
- Reid** (2008) Arkansas Ivory-billed Woodpecker search season report. Technical report for Cornell Lab of Ornithology.
- Harris & **Reid** (2007) Bird songs of Las Cruces, Costa Rica. Audio CD. ([available at Las Cruces Biological Station, Costa Rica](#)).
- Reid** (2005a) Forest research at Cross Creek. *Sewanee Plant Press Newsletter* 10:2-4.
- Reid** (2005b) Searching for *Clematis morefieldii*. *Sewanee Plant Press Newsletter* 9:2.

#### GRANTS

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- PARTNERS travel award, 2016, \$1000
- IdeaWild research grant (PIs: Reid, Zahawi), 2015, \$900
- PARTNERS travel award, 2015, \$500

- PARTNERS Working Group (PIs: Reid, Wilson), 2014, \$975
- PARTNERS travel award, 2014, \$800
- Davidson-Cristof travel grant, Association for Tropical Biology and Conservation, 2013, \$250
- UCSC Environmental Studies graduate research grant, 2013, \$850
- UCSC Environmental Studies graduate research grant, 2011, \$1000
- Bat Conservation International Student Scholarship, 2010, \$3000
- UCSC Environmental Studies graduate research grant, 2009, \$1000
- Bat Conservation International Student Scholarship, 2009, \$3750
- Organization for Tropical Studies competitive research grant, 2009, \$5000
- NSF Graduate Research Fellowship, 2009, \$122,500
- Organization for Tropical Studies workshop, 2008, \$1000
- Organization for Tropical Studies seed grant, 2007, \$1000
- Sewanee Herbarium fellowship, 2006, \$2000
- Sewanee Green fellowship, 2005, \$2000
- Associated Colleges of the South student development grant, 2003, \$1000
- Sewanee Wilkinson Scholarship, 2002-2006, half tuition

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SELECTED CONFERENCE PRESENTATIONS (\*undergraduate co-presenter)

- Reid**, Chaves-Fallas, Holl & Zahawi (2016) Tropical forest restoration enriches vascular epiphyte recovery. *Ecological Society of America, Fort Lauderdale, FL*
- Block \*, Evans & **Reid** (2016) The role of agricultural legacies in generating novel plant communities in nutrient-limited forests: a case study from the southern Cumberland Plateau. *Botanical Society of America Oldfield\**, Evans & **Reid** (2016) Ecological resistance to woody species loss in two adjacent southern Appalachian communities. *Botanical Society of America, Savannah, GA*
- Reid**, Chaves, Zahawi & Holl (2015) Tree planting increased Costa Rican epiphyte diversity. *St Louis Ecology, Evolution, and Conservation Symposium, St Louis, MO*
- Reid** (2015) How and where to restore tropical forests? *Innovative Practices in Re-wilding Tropical Ecosystems, Piro, Costa Rica*
- Reid** (2014) Conservation psychology: bat killing in southern Costa Rica. *Ecological Society of America, CA*
- Reid**, Mendenhall, Zahawi, & Holl (2013) Bat communities in a tropical forest restoration experiment in southern Costa Rica. *Using animals for ecological restoration, symposium, Society for Ecological Restoration, WI*
- Reid**, Mendenhall, Rosales, Gómez, Zahawi & Holl (2013) Frugivore communities and seed rain in regenerating pastures in Costa Rica. *What is the fate of a forest without vertebrate frugivores? Symposium, Ecological Society of America, Minneapolis, MN*
- Holl, Zahawi & **Reid** (2013) Applied nucleation as a forest restoration strategy. *Enhancing linkages between forest management and ecological theory, symposium, Ecological Society of America. Minneapolis, MN*
- Reid**, Mendenhall, Rosales, Zahawi & Holl (2013) Local and landscape effects of tropical forest restoration on bird and bat communities. *Agroecosystems as foci for conservation in the Neotropics: bridging the gap from science to action, symposium, Association for Tropical Biology and Conservation, San José, Costa Rica*
- Holl, **Reid**, Cole, Zahawi, Gómez & Mendenhall (2013) Patterns of zoochorous seed dispersal in restored tropical forest in Central America. *The importance of vertebrate seed dispersal for species diversity and community structure - merging case studies with theory, symposium, Association for Tropical Biology and Conservation, San José, Costa Rica*
- Reid**, Holste & Zahawi (2012) Bat roosts do not accelerate tropical forest restoration. *Ecological Society of America, Portland, OR*

- Holl, Zahawi, Stout\* & **Reid** (2012) Does restoring tropical forest using an applied nucleation approach enhance habitat heterogeneity and seedling recruitment? *Ecological Society of America, Portland, OR*
- Reid**, Mendenhall, Rosales, Zahawi & Holl (2011) Birds and tropical forest restoration: is it more important how or where you restore? *UCSC Graduate Research Symposium, Santa Cruz, CA*
- Reid** (2011) Conservation psychology: human dimensions of bat conservation in southern Costa Rica. *UCSC-Stanford Species Interactions Workshop, Palo Alto, CA*
- Reid**, Holste & Zahawi (2011) Artificial bat roosts: a viable tool for tropical forest restoration? *Society for Ecological Restoration, Mérida, México*
- Reid** (2009) Bird- and bat-mediated seed dispersal in tropical forest restoration. 2009. *UCSC Plant Symposium, Santa Cruz, CA*
- Reid** & Evans (2006) Non-equilibrium dynamics in a mixed mesophytic forest on the southern Cumberland Plateau. *Association of Southeastern Biologists, Gatlinburg, TN*
- Reid** & Shaffer (2006) Transpiration and photosynthetic rates of *Quercus prinus* and *Sassafras albidum* in clear-cuts versus secondary forest. *Scientific Sewanee Symposium, Sewanee, TN*
- Reid**, Patterson & Reynolds (2006) Effects of rock climbing on populations of mountain spleenwort (*Asplenium montanum*) on sandstone outcrops. *Scientific Sewanee Symposium, Sewanee, TN*

#### INVITED SEMINARS

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- Reid** (2017) Premontane tropical forest restoration in southern Costa Rica, *Biology Department, Southern Illinois University Edwardsville, IL*
- Reid** (2017) Premontane tropical forest restoration in southern Costa Rica, *Environmental Science and Management Department, Humboldt State University, CA*
- Reid** (2016) Achieving longevity in ecological restoration. *Missouri Botanical Garden, MO*
- Reid** (2016) Tropical forest restoration in southern Costa Rica. *Missouri Native Plant Society, MO*
- Reid** (2015) Restoration concepts, considerations, and strategies from Costa Rica – possible applications in Madagascar. *Madagascar Restoration Network, Antananarivo, Madagascar*
- Reid** (2015) Speed and permanence in tropical forest restoration. *Tyson Research Center, Washington U., MO*
- Reid** (2014) Community interactions in tropical forest restoration. *MO Botanical Garden, St Louis, MO*
- Reid** (2013) Restoring birds, bats, and dispersal mutualisms in a tropical, agricultural landscape. *Zoology Department, Oregon State University, Corvallis, OR*
- Reid** (2013) Restoring birds, bats, and dispersal mutualisms in a tropical, agricultural landscape. *Scripps Institute of Oceanography, La Jolla, CA*
- Reid** (2011) Bird conservation and tropical forest restoration. *American Bird Conservancy, The Plains, VA*

#### PROFESSIONAL & OUTREACH ACTIVITIES

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- Reviewer for *Applied Vegetation Science, Auk: Ornithological Advances, Biological Conservation, Biotropica, Conservation Biology, Forest Ecology and Management, Journal of Biogeography, Journal of Applied Ecology, Journal of Zoology, National Geographic Society, Plant Ecology, PLoS One, Restoration Ecology, Tropical Conservation Science*
- Coordinating editor, *Restoration Ecology, 2016-present*
- Associate editor, *Perspectives in Ecology and Conservation, 2017-present*
- Scientific Program Committee member, Society for Ecological Restoration annual meeting, *Foz do Iguaçu, Brazil, 2017*
- Symposium organizer, Ecological Restoration in a Changing Biosphere, w/ James Aronson, *Missouri Botanical Garden, 2016*
- Board of directors, Green Again International Afforestation (NGO), *2016-present*
- Scientific Consulting Committee, Ambatovy (Ni & Co mine in Madagascar), *2015-present*
- International Committee, American Ornithologists' Union, *2014-present*

- Curriculum Committee, Environmental Studies Dept., UC Santa Cruz, 2012-2013
- Steering Committee, Environmental Studies Dept., UC Santa Cruz, 2009-2011
- Co-founder, Sewanee Natural History Society, University of the South, 2005-2006

#### STUDENT MENTORING

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José Miguel Chaves-Fallas, PhD, University of Missouri – St Louis, Exp. 2020.

Research: *Coevolution of plant-insect herbivory in Neotropical archipelagos*

My role: PhD Committee Member

Frederico Domene, PhD, Universidade de São Paulo, Exp. 2017

Research: *Developing restoration strategies for vascular epiphytes in the Brazilian Atlantic Forest*

My role: Co-advisor with Dr. Pedro Brancalion

Matt Hill, MS, University of Minnesota, Exp. 2017.

Research: *Tropical forest restoration in eastern Madagascar*

My role: Advising on experimental design and restoration strategy

Olivia Hajek, BA, College of William and Mary, Exp. 2017.

Research: *Spatiotemporal patterns of understory vegetation responses to restoration in eastern Missouri*

My role: REU supervisor

Estefania Fernandez Barrancos, MS, Université de Montpellier, France, 2016.

Research: *Tank bromeliad transplants as an enrichment strategy in southern Costa Rica*

My role: Co-supervisor with Dr. James Aronson

Currently: Research assistant at Smithsonian Tropical Research Institute, Panama

Amanda Block, BA, Sewanee: University of the South, 2015.

Research: *The role of agricultural legacies in generating novel plant communities in nutrient-limited forests: a case study from the southern Cumberland Plateau.*

My role: Data analysis consulting

Callie Oldfield, BA, Sewanee: University of the South, 2015.

Research: *Ecological resistance to woody species loss in two adjacent southern Appalachian communities*

My role: Data analysis consulting

Currently: PhD student in Ecology at University of Georgia

Jenn Rosen, BA, University of Missouri, 2016.

Research: *Regeneration niche of Ozark chinquapin (Castanea ozarkensis) in native Ozark forests*

My role: REU co-supervisor with Dr. Matthew Albrecht & Dr. Quinn Long

Karisa Katsuki, BA, University of California – Santa Cruz, 2013.

Research: *Birds do not bias seed rain studies in southern Costa Rica*

My role: REU co-supervisor with Dr. Karen Holl

#### WORKING GROUP MEMBERSHIP

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NSF Research Coordination Network, 2014-2016. *People and Reforestation in the Tropics: a Network for Education, Research, and Synthesis*. Organizers: Robin Chazdon, Tom Rudel & Michael Willig

#### PROFESSIONAL AFFILIATIONS

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Ecological Society of America, Association for Tropical Biology and Conservation, Bat Conservation International, Society for Ecological Restoration

#### OTHER RESEARCH EXPERIENCE

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Undergraduate Mentor, Forest Ecology Research Plot, UC Santa Cruz, 2009-2013.

*Assisted undergraduate researchers in small mammal and bat community ecology research; surveyed small mammals using Sherman live traps; surveyed bats using Song Meter SM3 acoustic detection.*

Field Team Leader, Cornell University, Arkansas, 2007-2008.

*Planned and led 5-6 person canoe and johnboat expeditions in the White River basin searching for Ivory-billed Woodpeckers. Search techniques included camera traps, playback trials, and helicopter transects.*

Research Assistant to Mery Juiña, Fundación Jocotoco, Ecuador, 2007.

*Studied natural history of the Jocotoco Antpitta in Andean forest using mist nets & radio telemetry.*

Research Assistant to Kevin Hiers, Jones Ecological Research Center, Newton, Georgia, 2006-2007.

*Surveyed ground-layer vegetation composition in longleaf pine savannah; assisted prescribed fires.*

Research Assistant to Dr. Jon Evans, Sewanee Herbarium, 2005-2006

*Surveyed rare plant communities and monitored long-term woody plant dynamics on the southern Cumberland Plateau, TN.*