JANE MARGARET LUCAS, PhD

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Professional Appointments

2018-Present	Postdoctoral Researcher, Advisor: Dr. Michael Strickland, University of Idaho, Department of Soil and Water Systems, Moscow, Idaho
2017	Graduate Researcher, Advisor: Dr. Tomas Roslin, University of Helsinki, Spatial Food Web Ecology, Helsinki, Finland.
2016	Graduate Researcher, Advisor: Dr. Alfonso Alonso, Smithsonian Center for Conservation and Sustainability, Washington D.C.
2009-Present	Field Researcher, Barro Colorado Island, Panama
2013-2018	Graduate Researcher, Advisor: Dr. Michael Kaspari, University of Oklahoma, Department of Biology, Norman, OK
2011	Undergraduate Researcher, Global Health Course by the Organization for Tropical Studies, Costa Rica
2008-2013	Research Assistant, Advisor: Dr. Adam Kay, University of St. Thomas, Department of Biology, St. Paul, MN

Education

University of Oklahoma, Norman, OK
Department of Biology, Ecology and Evolutionary Biology Program
Doctorate of Philosophy in Ecology and Evolutionary Biology, 2013-2018
University of St. Thomas, St. Paul, MN
Bachelor of Arts in Biology, May 2012
Minor in Justice and Peace Studies, May 2012
Organization for Tropical Studies, Costa Rica
Global Health: Tropical Medicine and Public Health, Undergraduate Program, Spring 2011
St. Louis University in Madrid, Spain
Study Abroad Program, Spring 2010

Fellowships, Scholarships, Awards, and Grants (Total: $273,138)

2017 National Science Foundation Doctoral Dissertation Improvement Grant (DDIG), $16,138
2017 National Science Foundation Graduate Research Opportunities Worldwide (GROW), $5000
2017 OU Bullard Research Grant, $1000
2016 National Science Foundation Graduate Research Internship Program (GRIP), $5000
2015 Smithsonian Tropical Research Institute Short Term Fellowship, $2500
2014 Hill Grant, $500
2014 National Science Foundation Graduate Research Fellowship Program (GRFP), $138,000
2014 Adams Graduate Scholarship, $2,500
2013 Graduate Assistance in Areas of National Need Fellowship (GAANN), $102,000
2013 Graduate Teaching Academy Fellow
2012 St. Thomas Travel Grant, $500

2012 Best Talk in Session Minnesota Academy of Science Undergraduate Research Symposium
2012 Presidential prize best undergraduate talk, The Entomological Society of America meeting

Publications

Lucas, J.M., H. Nunn, and M. Kaspari. Antibiotics as chemical warfare against detritivorous invertebrate. *In prep.*

Lucas, J.M., A.A. Madden, C.A. Penick, M.J. Epps, P.R. Marting, J.L. Stevens, D.J. Fergus, R.R. Dunn, E.K. Meineke. Ants control insect pathogens, but not plant pathogens, inside their nests in a model ant-plant mutualism. *In prep.*

Danielsson, R., J., **J. Lucas** Dahlberg, M. Ramin, S. Agenas, I. Tapio, A. Bayat, T. Hammer and T. Roslin. Context-dependence of antibiotic effects on methane emissions from livestock. *In review, Proc. B.*

Lucas, J.M., E.M. Gora, and M. Kaspari. Antibiotic compounds shape the brown food web and influence ecosystem function in tropical forests. *In review, Ecology.*

Gora, E.M., **J.M. Lucas**, and S.P. Yanoviak. Microbial composition and decomposition rates vary with environmental conditions from the ground to the canopy in a tropical forest. *In Review, Ecology.*

Lucas, J.M., N.A. Clay, and M. Kaspari. (2018) External myrmecotrophy benefits host plants of dominant canopy ant, *Azteca trigona. Ecological Entomology.*

Lucas, J.M., E.M. Gora, and A. Alonso. (2017) A view of the global conservation job market and how to succeed in it. *Conservation Biology.*

Lucas, J.M., B. Bill, B. Stevenson, M. Kaspari. (2016) The microbiome of the ant-built home: the microbial communities of a tropical arboreal ant and its nest. *Ecosphere.*

Kaspari M., N.A. Clay, **J.M. Lucas**, S. Revzen, A.D. Kay, and S.P. Yanoviak. (2015) Thermal adaptation and phosphorus shape thermal performance in an assemblage of rainforest ants. *Ecology.*

Kaspari M., N.A. Clay, **J.M. Lucas,** S.P. Yanoviak, and A.D. Kay. (2014) Thermal adaptation generates a diversity of thermal limits in a rainforest ant community. *Global Change Biology*.

Clay, N.A., **J.M. Lucas**, M. Kaspari and A.D. Kay. (2013) Manna from heaven: Refuse from an arboreal ant connects aboveground and belowground processes in a lowland tropical forest. *Ecosphere.*

Kaspari M., D. Donoso, **J.M. Lucas**, T. Zumbusch and A.D. Kay. (2013) Using nutritional ecology to predict community structure: field test in Neotropical ants. *Ecosphere*.

Posters and Presentations

Lucas, J.M. and Kaspari, M. Antimicrobials as chemical warfare against detritivorous invertebrates. 2018 meeting of the Ecological Society of America, New Orleans, LA.

Lucas, J.M. From cooperation to competition: How microbes and invertebrates interact in a tropical forest. 2018. Dissertation Defense Seminar, University of Oklahoma.

Lucas, J.M. and Kaspari, M. The role of antibiotics in the decomposer food web. 2017 meeting of the Ecological Society of America, Portland, OR.

Lucas, J.M. How anthropogenic introductions of antibiotic compounds impact our ecosystems. 2017. University of Helsinki, Helsinki, Finland.

Lucas, J.M. Exploring the impact of *Azteca trigona* in a Neotropical Forest. 2017. University of Louisville: Biology Departmental Presentation, Louisville, KY.

Henderson, K., M. Kaspari, **J.M. Lucas.** *Azteca trigona* influence species distribution and ant behavior in a lowland tropical forest. 2017 National Conference for Undergraduate Research. University of Memphis, Memphis, Tennessee.

Lucas, J.M. The role of antibiotics in tropical forests. 2017. Ecomunch Presentation. University of Oklahoma, Norman, Oklahoma.

Lucas, J.M. The impact of antibiotics in Panama's tropical forests. 2016. STRI Microbial Symposium Oral Presentation. Smithsonian Tropical Research Institute, Panama.

Lucas, J.M. Patterns of bacterial community composition and nutrient content across *Azteca trigona* ants, their nest, refuse and surrounding soil. 2016 meeting of the Ecological Society of America, Fort Lauderdale, Fl.

Lucas, J.M. The microbiome of the ant-built home. 2016. OTS Guest Lecture. Barro Colorado Island, Panama.

Lucas, J.M. The microbiome of the ant-built home. 2016. Bambi Presentation. Barro Colorado Island, Panama.

Lucas, J.M. One ant's trash is another plant's treasure: How *Azteca trigona* connects above and belowground ecosystems. 2016. Smithsonian Center for Conservation and Sustainability Presentation, Washington, D.C.

Lucas, J.M. Bridging Science and Film: the scientific perspective. 2016. Guest Lecturer. American University Environmental Film Making Course, Washington, D.C.

Lucas, J.M., M. Kaspari, The Power of Azteca: How the canopy ant *A. trigona* influences plant growth in a wet tropical forest. 2015 Entomological Society of America, Minneapolis, MN.

Lucas, J.M. One ant's trash is another plant's treasure: How *Azteca trigona* connects above and belowground ecosystems. 2015. Ecomunch Presentation. Norman, Oklahoma.

Lucas, J.M. One ant's trash is another plant's treasure: How *Azteca trigona* connects above and belowground ecosystems. 2015. OTS Guest Lecture. Barro Colorado Island, Panama

Lucas, J.M., N.A. Clay, M.E. Kaspari, A.D. Kay. *Azteca* ants connect aboveground and belowground processes in a wet tropical forest. 2012 Annual Meeting/Winchell Undergraduate Research Symposium, St. Olaf, Northfield, MN.

Lucas, J.M., N.A. Clay, M.E. Kaspari, A.D. Kay. Refuse from an arboreal ant connects aboveground and belowground processes in a lowland tropical forest. 2011 meeting of the Ecological Society of America, Austin, TX.

Lucas, J.M., N.A. Clay, M.E. Kaspari, A.D. Kay. *Azteca* ants connect aboveground and belowground processes in a wet tropical forest. 2012 meeting of the Entomological Society of America, Knoxville, TN.

Teaching Experience

2018	Regional Approaches to Climate Change (REACCH) Internship Mentor University of Idaho, Moscow
2017	Teaching Assistant and Course Designer, Principles of Ecology University of Oklahoma, Norman
2017	REU Mentor, Barro Colorado Island Smithsonian Tropical Research Institute, Panama
2016	Guest Presenter, Barro Colorado Island

OTS Graduate Student Field Ecology Course

2016 REU Mentor, Barro Colorado Island
Smithsonian Tropical Research Institute, Panama

2015 Teaching Assistant, Molecular and Organismal Biology 1134
University of Oklahoma, Norman

2015 Guest Presenter, Barro Colorado Island
OTS Graduate Student Field Ecology Course

2015 REU Mentor, Barro Colorado Island
Smithsonian Tropical Research Institute, Panama

2014 REU Mentor, Barro Colorado Island
Smithsonian Tropical Research Institute, Panama

2012 CHANCE Instructor on Barro Colorado Island
Penn State University

Service and Outreach

2018 Guide to navigating graduate school student workshop
University of Idaho

2018 Guide to gaining essential skills in graduate school round table
University of Pittsburgh

2017 Guest lecture on alternative careers in conservation biology
University of Oklahoma, Ecology and Evolutionary Biology

2017 Guide to grant writing in graduate school guest lecture
University of Oklahoma, Ecology and Evolutionary Biology

2016 Mysteries of the Rainforest Video Segment on Smithsonian Channel
Smithsonian Tropical Research Institute

2016 Guided tour of Barro Colorado Island for OTS Course
Barro Colorado Island, Panama

2015 Secrets of the Rainforest Video Segment on Smithsonian Channel
Smithsonian Tropical Research Institute

2015 Madill High School field day at OUBS
University of Oklahoma Biological Station, OK

2015 Guided tour of Barro Colorado Island
Barro Colorado Island, Panama

2014 Madill High School field day at OUBS
University of Oklahoma Biological Station, OK

2012 Cretin-Durham Introduction to Research Class
Cretin-Durham High School, St Paul, MN

2012 St Thomas More Insect Day
St Thomas More Catholic School, St Paul, MN

2012 Groveland Park Insect Day
Guest instructor, Groveland Park Academy, St Paul, MN

2012 Dowling Elementary School Insect Day
Guest instructor Dowling Elementary, St Paul, MN