
Natalie A. Clay

School of Biological Sciences, Louisiana Tech University, Ruston, LA 71272
Phone: (318) 257-3197; nclay@latech.edu; <https://natalieclay.weebly.com>

RESEARCH

I am interested in how biogeochemistry and nutrient supplementation impact detrital community structure and function and trophic interactions among soil arthropods. I use field and laboratory experiments, naturally occurring environmental gradients, and stable isotope analysis to answer these questions.

ACADEMIC POSITIONS

- 2021-Present Associate Professor, School of Biological Sciences, Louisiana Tech University, Ruston, LA.
- 2018-2022 Herbert McElveen Endowed Professorship
- 2015-2021 Assistant Professor, School of Biological Sciences, Louisiana Tech University, Ruston, LA.
- 2014-2015 Research Affiliate, Department of Biology, University of Oklahoma, Norman, OK.
- 2014-2015 Postdoctoral Research Associate, Department of Biochemistry, Molecular Biology, Entomology & Plant Pathology, Mississippi State University, Mississippi State, MS.
- 2014 (Spring) Adjunct Lecturer, Department of Biology, University of Central Arkansas, Conway, AR.
- 2012-2013 Graduate Assistance in Areas of National Need (GAANN) Fellow, Department of Biology, University of Oklahoma, Norman, OK.
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EDUCATION

- 2013 Ph.D., Zoology—Ecology and Evolutionary Biology Program, University of Oklahoma, Norman, Oklahoma.
- 2008 B.A., Biology and Art (Double Major: both with distinction), *magna cum laude*, Colby College, Waterville, Maine.
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PUBLICATIONS * = undergraduate coauthor **=Graduate Student coauthor

In Print

- Clay, N.A., Shepard, D.B., Garda, A.A., Mesquita, D.O., Vasconcellos, A. (2022). Evidence of sodium limitation in ants and termites in a Neotropical savanna. *Journal of Tropical Ecology*.

- Gruntz, C.P.*, Entekin, S.A., Evans-White, M.A., **Clay, N.A.** (2022). Too much of a good thing: Evidence of sodium stress in an inland subtropical detrital system. *Applied Soil Ecology*, 169:104194
- Herrmann, M.C.*, Entekin, S.A., Evans-White, M.A., **Clay, N.A.** (2022). Salty water and salty leaf litter alters riparian detrital processes: Evidence sodium-addition laboratory mesocosm experiments. *Science of the Total Environment*, 806:151392.
- Clay, N.A.**, Siegert, C., Tang, J., Little, N.S., Eckhardt, L.G., Riggins, J.J. (2021) Termite presence and feeding on loblolly pine wood differs among four root-infecting bluestain (ophiostomatoid) fungal species. *Environmental Entomology*, 50:1118-1126.
- Clay, N.A.** 2020. In Focus: The geography of grassland plant chemistry and productivity accounts for ant sodium and sugar usage. *Journal of Animal Ecology*, 89:272-275.
- Entekin, S.A., **Clay, N.A.**, Mogilevski, A.***, Howard-Parker, B.***, Evans-White, M.A. 2019. Multiple riparian-stream connections are predicted to change in response to salinization. *Philosophical Transactions B*, 374:1764.
- Siegert, C., **Clay, N.A.**, Tang, J.D., Garrigues, L.G.*, Riggins, J.J. 2018. Indirect effects of bark beetle-generated dead wood on biogeochemical and decomposition processes after one year: the role of termites and bluestain fungus. *Oecologia*, 188:1209-1226.
- Lucas, J.***, **Clay, N.A.**, Kaspari, M. 2018. Nutrient transfer supports a beneficial relationship between the canopy ant, *Azteca trigona*, and its host tree. *Ecological Entomology*, 43:621-628.
- Siegert, C.M., Renniger, H.J., Kaurnarathna, A.A.S., Riggins, J.J., **Clay, N.A.**, Tang, J.T., Hornslein, N.***, Chaney, B.L.* 2018. Biogeochemical hotspots around bark beetle-killed trees. *Proceedings of the Biennial Southern Silviculture Research Conference*. Asheville, NC: US Department of Agriculture, Forest Service, Southern Research Station: 73-82.
- Clay, N.A.**, R. Lehrter*, M. Kaspari. 2017. Toward a biogeography of omnivory: Omnivores increase predation when sodium is limiting. *Journal of Animal Ecology*. 86:1523-1531.
- Clay, N.A.**, N. Little, J. Riggins. 2017. Inoculation of ophiostomatoid fungi in Loblolly pine (*Pinus taeda*) trees increases the presence of subterranean termites in fungal lesions. *Arthropod-Plant Interactions*. 11:213-219.
- Tyree, M.*, **N.A. Clay**, S. Polasky,** S. Entekin. 2016. Salt in our streams: Even small sodium additions can have negative effects on detritivores. *Hydrobiologia*, 775:109-122.
- Kaspari, M., **N.A. Clay**, J. Lucas*, S. Revzen, A.D. Kay, S.P. Yanoviak. 2016. Thermal adaptation and phosphorus shape thermal performance in an assemblage of rainforest ants. *Ecology*, 97:1038-1047.
- Clay, N.A.**, D.A. Donoso & M. Kaspari. 2015. Urine as a source of sodium increases decomposition in an inland but not coastal tropical forest. *Oecologia*, 177:571-579. doi: 10.1007/s00442-014-3183-4.
- Kaspari, M., **N.A. Clay**, J. Lucas*, S.P. Yanoviak, A.D. Kay. 2014. Thermal adaptation generates a diversity of thermal limits in a rainforest ant community. *Global Change Biology*, 21:1092-1102.

- Clay, N.A.**, S.P. Yanoviak, M. Kaspari. 2014. Short-term sodium inputs attract microbiodetritivores and their predators. *Soil Biology & Biochemistry*, 75:248-253.
- Kaspari, M., **N.A. Clay**, D.A. Donoso, S.P. Yanoviak. 2014. Sodium fertilization increases termites and enhances decomposition in an Amazonian forest. *Ecology*, 95:795-800.
- Clay, N.A.**, J. Lucas*, M. Kaspari, A.D. Kay. 2013. Manna from heaven: Refuse from an arboreal ant links aboveground and belowground processes in a lowland tropical forest. *Ecosphere*, 4:141.
- Donoso, D.A., M.K. Johnston, **N.A. Clay**, M. Kaspari. 2013. Trees as templates for trophic structure of tropical litter arthropod fauna. *Soil Biology and Biochemistry*, 61:45-51.
- Clay, N.A.**, M. Bauer*, M. Solis, S.P. Yanoviak. 2010. Arboreal substrates influence foraging in tropical ants. *Ecological Entomology*, 35:417-423.
- Kaspari, M., S.P. Yanoviak, R. Dudley, M. Yuan, **N.A. Clay**. 2009. Sodium shortage as a constraint on the carbon cycle in an inland tropical rainforest. *PNAS*, 106:19405-19409.

In Revision, Submission, or Review

- Siegert, C., Renninger, H., **Clay, N.A.**, Hornslein, N., Dash, P., Riggins, J. (In Review). Changes in forest hydrology and soil biogeochemistry following a simulated tree mortality event by southern pine beetle. *Forest Science*.
- Clay, N.A.**, Herrmann, M., Evans-White, M.A., Entrekin, S.A., West, C. (In Submission). Sodium as a subsidy in the spring: evidence for a phenology of sodium-limitation.
- Entrekin, S., Howard-Parker, B., Evans-White, M., **Clay, N.A.** (In Revision). Salt type matters: Ion concentration and identity differentially altered growth and resource use of a common freshwater detritivore (Plecoptera) at sub-lethal levels.
- Mogilevski, A.** , **Clay, N.A.**, Howard-Parker, B.** , Evans-White, M.A., Entrekin, S.A. (In Revision). Salt-subsidized shredder growth depends on specific ions and the pathway of exposure.
- Morin C., Adams, J., Holley, G., Keith, A., Jackson, P., Clay, N.A., (In Revision). Efficacy of cedar, garlic, peppermint, and lemongrass compounds for reducing red imported fire ant feeding and nests.

GRANTS (Total = \$478,081.25; \$411,946.83 at Louisiana Tech University)

- 2018 United States Geological Survey Louisiana Water Resources Research Institute 104b Program. Ecological consequences of low-level sodium inputs in riparian zones on decomposition processes and inputs to freshwater ecosystems. (PI: N. Clay, Co-PI: S. Entrekin, M. Evans-White). \$36,856. June 18, 2018 - June 19, 2019.
- Louisiana Tech University Student Technology Fee Board: Request to purchase 31 thin client computers to update the computer lab in Carson-Taylor Hall. (PI: Maness, T., Co-PIs: Clay, N. Hill, J., Johnson, V. Nesterova, G., Shepard, D.). \$18,797.78. March 2018-March 2019.
- 2017 National Science Foundation DEB Ecosystem Science EAGER: EAGER: Quantifying the effects of a fungus-mediated termite and bark beetle interaction on wood

- decomposition. (PI: J. Riggins, Co-PI: C Siegert, Co-PI: N. Clay, Co-PI: J. Tang). \$227,492. June 1, 2016 – May 31, 2018.
- Louisiana Tech University Student Technology Fee Board: Stereomicroscopes for teaching laboratories. (PI: N. Clay, Co-PI: J. Hill, Co-PI: D. Shepard). \$24,932.60.
- Private Investor. Insect Repellent Product Testing. (PI: J. Adams, Co-PI: N. Clay, Co-PI: A. Keith, Co-PI: P. Jackson, Co-PI: G. Holley). \$17,430.
- Lagniappe Ladies Grant: Updating Signage and Conference Room in Carson-Taylor Hall. (PI: J. Newman, Co-PI: N. Clay, K. Kemege, C. Cooper). \$1,700.
- 2016 Private Investor. Insect Repellent Product Testing. (PI: J. Adams, Co-PI: N. Clay, Co-PI: A. Keith, Co-PI: P. Jackson, Co-PI: G. Holley). \$17,168.
- College of Applied and Natural Sciences Faculty Research Mini-Grant. Predicting herbivory across a sodium gradient. Louisiana Tech University. \$340.
- Louisiana Tech University Student Technology Fee Board: Equipment for the collection, preservation, and storage of insects. (PI: N. Clay). \$15,559.92.
- Louisiana Tech University Student Technology Fee Board: Stereomicroscopes for existing and future biology courses. (PI: J. Hill, Co-PI: N. Clay). \$38,277.53.
- Board of Regents: Traditional and Undergraduate Enhancement Proposal: Stereomicroscopes for environmental science courses. (PI: N. Clay, Co-PI: J. Hill) \$51,892 + \$8,500 Institutional Match. Recommended for funding if funds available, but there was insufficient funds and the grant was not awarded.
- Arkansas Water Resources Center-United States Geological Survey (AWRC-USGS) 104B Program: Biological and ecological consequences of sub-lethal ion concentrations on microbial and macroinvertebrate detritivores. (PI: S. Entrekin, Co-PI: N. Clay, M. Evans-White). \$12,393.
- College of Applied and Natural Sciences Faculty Research Mini-Grant. Predicting herbivory across a sodium gradient. Louisiana Tech University. \$1000.
- 2015 Mississippi Forestry Commission. Host Range and Invasive Potential of Recently Detected Non-Native Ambrosia Beetles. (PI: J. Riggins; Co-PIs: R. Brown & N. Clay), \$31,000.
- Institute for Genomics, Biocomputing & Biotechnology, Mississippi State University. High-throughput fungal sequencing and biogeochemistry to describe trophic cascade during blue stain-catalyzed decomposition of bark beetle killed wood. (PI: J. Riggins, J. Tang, C. Siegert, N. Clay). \$5000.
- 2014 CALS/MAFES Undergraduate Research Scholars Program RFP, Mississippi State University, (PI: J. Riggins; Co-PI: N. Clay), \$5,000
- 2013 College of Arts and Sciences Student Research and Educational Travel Funding, University of Oklahoma, \$750
- Graduate Student Senate Travel Grant, University of Oklahoma, \$574.50
- College of Arts and Sciences Student Research and Educational Travel Funding, University of Oklahoma, \$750

- Graduate Student Senate Research Grant, University of Oklahoma, \$504
 Loren G. Hill Zoology Excellence Fund, University of Oklahoma, \$500
 Department of Biology Travel Fund, University of Oklahoma, \$250
- 2012 National Science Foundation Doctoral Dissertation Improvement Grant, \$14,903
 Graduate Student Senate Travel Grant, University of Oklahoma, \$750
 Graduate Student Senate Research Grant, University of Oklahoma, \$750
 Graduate Student Senate Research Grant, University of Oklahoma, \$675
 Department of Biology Travel Fund, University of Oklahoma, \$250
 Graduate Student Senate Travel Grant, University of Oklahoma, \$125
- 2011 College of Arts and Sciences Student Research and Educational Travel Funding,
 University of Oklahoma, \$750
 Robberson Conference Presentation and Creative Exhibition Travel Grant, University of
 Oklahoma, \$500
 Graduate Student Senate Travel Grant, University of Oklahoma, \$300
 Department of Zoology Travel Fund, University of Oklahoma, \$250
 Graduate Student Senate Research Grant, University of Oklahoma, \$202.12
- 2010 Department of Zoology Travel Fund, University of Oklahoma, \$250
 Loren G. Hill Zoology Excellence Fund, University of Oklahoma, \$490
 Graduate Student Senate Research Grant, University of Oklahoma, \$100.80
- 2009 Robberson Research & Creative Endeavors Grant, University of Oklahoma, \$1000
 Department of Zoology Travel Fund, University of Oklahoma, \$250

HONORS, SCHOLARSHIPS, AND AWARDS (Total = \$56,415.22)

- 2021 Nominated for a College of Applied and Natural Sciences Teaching Award, Louisiana
 Tech University
- 2020 Nominated for a College of Applied and Natural Sciences Teaching Award, Louisiana
 Tech University
- 2019 Research Award, Louisiana Tech University, College of Applied and Natural Sciences.
 Nominated for a College of Applied and Natural Sciences Teaching Award, Louisiana
 Tech University
 Nominated for the Louisiana Tech University Virgil Orr Junior Faculty Award
- 2018 Awarded the 2017 British Ecological Society's Elton Award for best paper published in
Journal of Animal Ecology by an early career scientist (£250)
 Nominated for a College of Applied and Natural Sciences Teaching Award, Louisiana
 Tech University
- 2012-13 Graduate Assistance in Areas of National Need (GAANN) Fellowship,
 University of Oklahoma (\$49,117)
- 2013 McNair Choice Poster Award in Science for Graduate Student Research and
 Performance Day, University of Oklahoma, \$100
 Second Place for Entomological Society Meeting Best Paper Presentation in Student

Competition in P-IE12, \$50

- 2012 Scientific Illustrations published in: Donoso, D.A. (2012). *Zootaxa*, 3503:61–81.
 Adams Summer Scholarship, University of Oklahoma, \$2500
 Corinne Price Scholarship, University of Oklahoma, \$1200
 First Place Poster Award in Science for Graduate Student Research and Performance
 Day, University of Oklahoma, \$200
- 2011 Adams Academic Year Scholarship, University of Oklahoma, \$1000
- 2010 Organization for Tropical Studies Outstanding Student Paper Award, Honorable
 Mention
 Adams Academic Year Scholarship, University of Oklahoma, \$1000
 Robert E. and Mary B. Sturgis Scholarship, University of Oklahoma, \$1200
 National Science Foundation Graduate Research Fellowship, Honorable Mention
- 2009 National Science Foundation Graduate Research Fellowship, Honorable Mention

TEACHING EXPERIENCE

Lecturer/Instructor

*Indicates graduate-level; **Indicates both undergraduate & graduate sections

Entomology, School of Biological Sciences, Louisiana Tech University

Ecology, School of Biological Sciences, Louisiana Tech University

Ecological Topics**, School of Biological Sciences, Louisiana Tech University

Biology Colloquium**, School of Biological Sciences, Louisiana Tech University

Honors Biology Colloquium, School of Biological Sciences, Louisiana Tech University

Tropical Biology & Conservation, School of Biological Sciences, Louisiana Tech University

Special Topics: Domestication of the Dog**, School of Biological Sciences, Louisiana Tech
 University

Current Topics in Biology: Ecological Stoichiometry*, School of Biological Sciences,
 Louisiana Tech University

Current Topics in Biology: Plant Chemistry & Ecological Impacts*, School of Biological
 Sciences, Louisiana Tech University

Undergraduate Seminar, School of Biological Sciences, Louisiana Tech University

Biology for General Education: Human Biology, Department of Biology, University of
 Central Arkansas

Concepts of Science, Department of Science Education, University of Central Arkansas

Professional Development in Science, Department of Entomology, Mississippi State University

Lab Teaching Assistant

Introduction to Zoology Laboratory, University of Oklahoma Fall 2008 & Spring 2009
 (Graduate Teaching Assistant)

Evolution and Diversity Laboratory, Colby College, Waterville, ME, Spring 2008
 (Undergraduate Teaching Assistant)

Invited Course Lecture Speaker

Decomposition and soils lecture, invited by Dr. Courtney Siegert for **Forest Soils**, Mississippi
 State University, Mississippi State, MS, Spring 2014

Forest belowground systems lecture and lab, invited by Dr. John Riggins, for **Forest Pest Management**, Mississippi State University, Mississippi State, MS, Fall 2014
 Ant biology lecture, invited by Dr. Kenneth Hobson, for **Entomology**, University of Oklahoma, Norman, OK, Fall 2013
 Ant social behavior lecture, invited by Dr. Matthew Dugas, for **Social Behavior and Adaptation**, Department of Biology, Hendrix College, Conway, AR, Spring 2012

MENTORING EXPERIENCE

Undergraduate Honors Thesis Advisor: 2

Undergraduate Research Mentor: 40

MS Committee Member: 13

Masters Advisor: 4

PRESENTATIONS

Symposiums Organized

2015 Co-organized (with Dr. John Riggins): Pests, Decomposition, and Nutrient Cycles in Forest Ecosystems. Southern Forest Insect Work Conference, Fayetteville, AR.

Invited Speaker

2022 **Clay, NA**, Herrmann, M., Evans-White, M., Entrekin, S., West, C., Gruntz, C. 2022. Impacts of Salinization on Riparian Decomposers, Plants, and Freshwater Inputs. Joint Aquatic Sciences Meeting, Grand Rapids, MI.

2021 Clay, N.A. 2021. Salted soil and salty leaves: Impacts of NaCl on detritivores in riparia. Virginia Tech, Entomology Seminar Series. Invited by Ms. Abigail Belvin, PhD Candidate.

Clay, NA. 2021. From Active Ants to Tenacious Termites: Sodium Impacts on Detrital Processes. Biological Sciences Seminar Series, Auburn University. Invited by: Dr. Bill Wills.

2019 Clay, N.A. 2019. Insects and nutrient availability: impacts on community structure and ecosystem functions. Departamento de Sistemática e Ecologia, Universidade Federal da Paraíba, João Pessoa, Brasil. Invited by Dr. Daniel Mesquita.

Salt impacts on connections between riparian-stream detrital systems. Systematics, Ecology, and Evolution Seminar Series, Louisiana State University. Hosted by Dr. Kyle Harms.

Clay, N.A., Gorgojos del pino, Descomponedores, y el Ciclo del Carbon. UNACIFOR, Siguatepeque, HN. Oral Presentation.

2018 Clay, N.A. 2018. Toward a theory of omnivory: Carnivory as a means to reach micronutrient requirements. Ecological Society of America Meeting, New Orleans, LA. Inspire Presentation

Clay, N.A., 2018. Insect Effects on Nutrient Cycling. Southern Forest Insect Work

- Conference, San Antonio, TX. Paper Presentation.
- Clay, N.A., 2018. Gorgojos del pino, Descomponedores, y el Ciclo del Carbon. UNACIFOR, Siguatepeque, HN. Oral Presentation.
- 2017 Bluestain fungi-mediated impacts on detrital communities, nutrient cycling, and decomposition. Entomology Department, Louisiana State University.
- Bark beetles, fungi, and termites: Impacts on wood decomposition. Department of Biology, University of Central Arkansas. Hosted by Dr. Sally Entrekin.
- Riggins, J.J.*, **Clay, N.A.***, Siegert, C., Tang, J., Hofstetter, R., Leveron, O. Beetle, Fungi, and Termites: Biotic interactions driving wood decomposition. Intercambio de Experiencias Relacionadas con el Manejo y Combate del Gorgojo Descortezador de Pino en Honduras y el Ejército Sur de los Estados Unidos de América. Tegucigalpa, Honduras. Oral Presentation. * Equal Presenters.
- 2016 **N.A. Clay**, N. Little, C. Siegert, J. Tang, J.R. Riggins. Interactions among bark beetles, blue stain fungi, and termites: Impacts on decomposition and diversity. International Congress of Entomology, Orlando, FL, USA. doi:10.1603/ICE.2016.94078
- 2014 Detritus like lettuce: The importance of salt to decomposer communities. Oktibbeha Audubon Society, hosted by Dr. Jeff Harris, Mississippi State University.
- Connections between above and belowground systems: Interactions among nutrients, invertebrates and fungi. Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology Seminar, hosted by Dr. Michael Caprio, Mississippi State University
- 2013 Sodium availability and the structure and function of brown food webs. EEB Seminar, hosted by Dr. Tony Joern, Kansas State University.
- Nutrient availability and the structure and function of brown food webs. Department of Biology Seminar, hosted by Dr. Michael Kaspari, University of Oklahoma
- Contributed Papers & Posters*
- 2022 **Clay, N.A.**, Southern Forest Insect Work Conference, Lexington, KY. Paper Presentation
- 2019 **Clay, N.A.**, Samples, C., Tang, J., Siegert, C., Riggins, J.J. Impacts of bark-beetle attacked wood on detrital processes after one year. Southern Forest Insect Work Conference, Savannah, GA. Paper Presentation.
- 2018 **Clay, N.A.**, Lehrter, R., Kaspari, M. 2018. Salt and the geography of omnivory: Omnivorous ants increase carnivory when sodium is limiting. British Ecological Society of America Meeting, Birmingham, England. Paper Presentation.
- Clay, N.A.**, Siegert, C., Tang, J., Garrigues, L.G., Riggins, J.J. 2018. Multitrophic interactions alter biogeochemistry after one year in a coarse woody debris experiment: Interactions among bark beetles, fungi, and subterranean termites. Ecological Society of America Meeting, New Orleans, LA. Paper Presentation.
- 2017 **N.A. Clay**, J. Tang, C. Siegert, N. Little, J.R. Riggins. Subterranean termite interactions with ophiostomatoid (bluestain) fungi: implications for wood decomposition. Entomological Society of America Meeting. Denver, CO, USA. (Paper Presentation)

- 2015 **N.A. Clay**, N. Little, J. Riggins. Interactions among bark beetles, blue stain fungi, and termites enhance decomposition and biodiversity. Southern Forest Insect Work Conference. Fayetteville, AR, USA. (Paper Presentation)
- 2014 **N.A. Clay**, R. Lehrter, M. Kaspari. Sodium limitation and the biogeography of omnivory: ants increase prey consumption in sodium-poor environments. Southern Forest Insect Work Conference. Charleston, SC, USA. (Paper Presentation)
- 2013 **N.A. Clay**, R. Lehrter, M. Kaspari. The biogeography of omnivory: Do omnivores increase prey consumption relative to plants in sodium-poor environments? Entomological Society of America Meeting. Austin, TX, USA. (Paper Presentation)
N.A. Clay, R. Lehrter, M. Kaspari. The biogeography of omnivory: Do omnivores increase prey consumption relative to plants in sodium-poor environments? Ecological Society of America Meeting. Minneapolis, MN, USA. (Paper Presentation)
N.A. Clay, D. Donoso, M. Kaspari. Urine increases woody decomposition in an inland, but not coastal, tropical forest despite depressing the detrital communities of both. Association for Tropical Biology and Conservation Meeting. San Jose, Costa Rica. (Paper Presentation)
N.A. Clay, R. Lehrter, M. Kaspari. Sodium hunger increases predation in common omnivores. University of Oklahoma Research and Performance Day. Norman, OK, USA. (Poster Presentation)
- 2012 **N.A. Clay**, M. Kaspari. Nutrients more than predators alter decomposition and invertebrate communities in tropical brown food web mesocosms. Ecological Society of America Meeting. Portland, OR, USA. (Paper Presentation)
N.A. Clay, D.A. Donoso, M. Kaspari. Urine as an important sodium source increases decomposition in a Na-poor but not Na-rich tropical forest. University of Oklahoma Research and Performance Day. Norman, OK, USA. (Poster Presentation)
- 2011 **N.A. Clay**, J.A. Lucas, M. Kaspari, A. Kay. Manna from heaven: Refuse from the arboreal, carton-nesting ant, *Azteca trigona*, connects aboveground and belowground processes in a lowland tropical rainforest. 59th Annual Meeting of the Entomological Society of America. Reno, NV, USA. (Paper Presentation)
N.A. Clay, D.A. Donoso, M. Kaspari. Urine as an important sodium source increases decomposition in a Na-poor but not Na-rich tropical forest. Ecological Society of America Meeting. Austin, TX, USA. (Paper Presentation)
N.A. Clay, S.P. Yanoviak, M. Kaspari. Bottom-up effects of sodium regulate an Amazonian brown (detrital) food web through increases in detritivores. University of Oklahoma Research and Performance Day. Norman, OK, USA. (Poster Presentation)
- 2010 **N.A. Clay**, S.P. Yanoviak, M. Kaspari. Bottom-up effects of sodium regulate an Amazonian brown (detrital) food web through increases in detritivores. 58th Annual Meeting of the Entomological Society of America. San Diego, CA, USA. (Paper Presentation)

RESEARCH AND TRAINING RELATED TRAVEL

2019 Nov, Field Research, Cerrado, Brazil

2017-19 July-Aug, Field Research, Siguatepeque, Honduras and Flagstaff, Arizona, USA

- 2014-19 June-May, Field Research, Starkville, MS, USA
 2012 May-Aug., Field Research, East Coast, GA to ME, USA
 2011 May-July, Field Research: Barro Colorado Island, Panama
 2010 May-Aug., Field Research: Yasuni Research Station, Ecuador
 2009 May-Aug., Field Research: Barro Colorado Island, Panama
 Aug., The Ant Course, Southwest Research Station, Portal, Arizona, USA
 2008 Jan., Ecological Field Study course, Cockscomb Basin Wildlife Sanctuary, South Water
 Caye, Blue Creek Rainforest Station, Belize
 2007 June-Aug., REU OTS summer internship, La Selva, Costa Rica
 2006 July-Nov., Study abroad, University of Otago, Dunedin, New Zealand
 Jan., Spanish course, Andean Center for Latin American Studies, Quito, Ecuador

PROFESSIONAL MEMBERSHIPS

Association for Tropical Biology & Conservation; Entomological Society of America;
 Ecological Society of America; Sigma Xi; TriBeta; British Ecological Society, Southern Forest
 Insect Working Conference

PROFESSIONAL SERVICE

Associate Editor for *Journal of Animal Ecology*

Book Chapter Reviewer (1)

Journal Referee for: *Annals of the Entomological Society*, *Applied Soil Ecology*, *Biotropica*,
Ecological Entomology, *Ecology*, *Ecosystems*, *Functional Ecology*, *Hydrobiologia*, *Insectes
 Sociaux*, *Insect Conservation and Diversity*, *Journal of Animal Ecology*, *Oecologia*, *Oikos*,
Proceedings of the Royal Society B, *Revista Brasileira de Entomologia*, and *Southwestern
 Naturalist*

Louisiana Tech Chapter Sigma Xi Treasurer, 2018-Present

Graduate Women in Science National Fellowship Program Grant Reviewer 2022

SYNERGISTIC ACTIVITIES

- 2022 Oral Presentation Judge, Louisiana Tech College of Applied & Natural Sciences
 Research Day
 2021 STEMINIST FEST Female Panelist, Louisiana Tech University, Ruston, LA
 2018 Bioblitz participant, Dr. Charles Allen Nature Preserve, Columbia, LA.
 2017 Junior High Science Fair Judge at Louisiana Tech University, Ruston, LA.
 2015 Girls of Power in STEM Presenter, University of Central Arkansas, Conway, AR.
 4th Grade Science Fair Judge, Henderson Ward Stewart Elementary School, Starkville,
 MS
 3rd Grade Science Fair Judge, Henderson Ward Stewart Elementary School, Starkville,
 MS

- 2014 Science Night, Physical Science, St. Joseph Elementary School, Conway, AR
 Science Night, Life Science, Ruth Doyle Intermediate School, Conway, AR
- 2013 Madill High School Science Day, Insect Ecology, OU Biological Station, OK
 Kindergarten Invertebrate Day at Wilson Elementary School, Norman, OK
- 2012 Kindergarten Insect Science Day at Kennedy Elementary School, Norman, OK
 Science in Action and Object I.D. Day, Neuroscience Activities, Sam Noble
 Museum of Natural History, OK
- 2009 Bioblitz participant, Robbers Cave State Park, Wilburton, OK

MEDIA ATTENTION

- 2018 *Inside Science*: “Ants Turn Carnivorous When Salt is Scarce”. Nala Rogers.
<https://www.insidescience.org/news/ants-turn-carnivorous-when-salt-scarce>
 Field Reports Pod Cast & BES Elton Prize.
<https://journalofanimalecology.wordpress.com/2018/04/16/natalie-clay-winner-of-the-2017-elton-prize/>
- 2017 *NIWR*: “Researchers Find that Added Salts Affect Stream Organisms”.
<http://niwr.info/media/research/researchers-find-added-salts-affect-stream-organisms>
 Especialistas estadounidenses analizan plaga del gorgojo en la UNACIFOR.
<http://zonacentraldigital.com/especialistas-estadounidenses-analizan-plaga-del-gorgojo-en-la-unacifor/>
- 2011 Filmed interview for Secret Life of the Rainforest 3D documentary for the Smithsonian Channel with Electric Sky Productions Ltd <<http://www.electricskyproductions.com/>> and <http://www.smithsonianchannel.com/site/sn/show.do?show=141211#ants-that-farm>
- 2009 *National Geographic Online*: Amazon’s low salt content keeps carbon emissions at bay.
http://news.nationalgeographic.com/news/2009/11/091104-amazon-salt_2.html
Environmental Research Letters Online: “Salt-starved termites increase carbon” storage.
<http://environmentalresearchweb.org/cws/article/research/40871>
The Oklahoma Daily: “National Geographic picks up OU researcher’s findings”.
<http://oudaily.com/news/2009/nov/19/national-geographic-picks-ou-researchers-findings/>