

COURTNEY M. SIEGERT

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EDUCATION

2013 Ph.D. Geography (Climatology) University of Delaware
2009 M.S. Geography University of Delaware
2007 B.S. Mathematics Fairfield University

PROFESSIONAL EXPERIENCE

2019-present Associate Professor, Department of Forestry, Mississippi State University
2013-2019 Assistant Professor, Department of Forestry, Mississippi State University
2009-2013 Graduate Research Assistant, Department of Geography, University of Delaware
2007-2013 Graduate Teaching Assistant, Department of Geography, University of Delaware

AWARDS & DISTINCTIONS

2020 Research Award, Office of Research and Economic Development/Division of Agriculture, Forestry, and Veterinary Medicine, Mississippi State University

2019 Research Award, College of Forest Resources, Mississippi State University

2018 Teaching Award, Regions Bank – Division of Agriculture, Forestry, and Veterinary Medicine, Mississippi State University

2016 Teaching Award, College of Forest Resources, Mississippi State University
National Finalist, Communication Award: Learning Module, National Association of County Agricultural Agents

2013 Outstanding Accomplishment in Research, University of Delaware

2012 University Dissertation Fellowship, University of Delaware

2011 Graduate Research Fellowship, College of Earth, Ocean, and Environment, University of Delaware
Lilly Conference Teaching Fellow, Center for Teaching and Learning, University of Delaware

2010 Woman of Promise, University of Delaware

GRANTS – (\$4,157,904 received grants + \$745,743 capacity grants)

2020 Department of Energy (**2,035,599**) *PoSIES: Populus in the southeast for integrated ecosystem services*. Team: HJ Renninger, **CM Siegert**, A Himes, Q Ma, RB Iglay, TG Rials, N Labbé, JP Adams, C Gantz.

National Fish and Wildlife Foundation (**\$196,929**) *Novel techniques for restoring shortleaf pine and shortleaf pine-hardwood ecosystems on reclaimed mine sites*. Team: JJ Granger, **CM Siegert**, K Poudel.

Infinity Science Center. (**\$93,000**) *Restoration impacts on ecosystem productivity, soil health, and water quality*. Team: K Poudel, JJ Granger, **CM Siegert**.

- 2019** College of Forest Resources/Forest and Wildlife Research Center Undergraduate Research Scholars Program, Mississippi State University. **(\$3,000)** *Bark-Fire Interactions: do differences in bark water retention and storage impact tree species ability to survive fire?* Team: **CM Siegert**, A Ilek, A Wade.
- Norbord, MS LLC. **(\$1,000)** *Understanding impacts of climate change on forest ecosystems.* Team: **CM Siegert**.
- McIntire-Stennis Capacity Grant, National Institute of Food and Agriculture, United States Department of Agriculture. MISZ-032100 **(\$276,187, requested)** *Disturbance impacts to forest hydrology and biogeochemistry in the southeastern United States.* 2019-2023. Team: **CM Siegert**
- 2018** Agriculture and Food Initiative, United States Department of Agriculture. **(\$1,000,000)** *Advancing Populus Pathways in the Southeast.* #9500070302. 2018-2023. Team: TG Rials, N Labbé, RR Rousseau, HJ Renninger, **CM Siegert**, JP Adams, C Gantz.
- Agriculture and Food Initiative, United States Department of Agriculture. **(\$484,328)**. *Multifunctional ecosystems: Nitrogen mitigation by short rotation woody crops in the Lower Mississippi Alluvial Valley.* #2018-67020-27934. 2018-2022. Team: HJ Renninger, **CM Siegert**, RR Rousseau.
- College of Forest Resources/Forest and Wildlife Research Center Undergraduate Research Scholars Program, Mississippi State University. **(\$3,000)** *Short rotation woody crop impacts to water budgets.* Team: **CM Siegert**, AJ Lowery.
- Norbord, MS LLC. **(\$1,000)** *Understanding impacts of climate change on forest ecosystems.* Team: **CM Siegert**.
- 2017** College of Forest Resources/Forest and Wildlife Research Center Undergraduate Research Scholars Program, Mississippi State University. **(\$3,000)** *Are stemflow nutrient additions a lifeline to soil and microbial communities following fire in upland oak forests?* Team: **CM Siegert**, MA Burton.
- National Science Foundation. **(\$227,493)** *EAGER: Quantifying the effects of a fungus-mediated termite and bark beetle interaction on wood decomposition.* DEB-1660346. 2017-2019. Team: JJ Riggins, NA Clay, **CM Siegert**, JD Tang.
- Norbord, MS LLC. **(\$1,000)** *Understanding impacts of climate change on forest ecosystems.* Team: **CM Siegert**.
- 2016** College of Forest Resources/Forest and Wildlife Research Center Undergraduate Research Scholars Program, Mississippi State University. **(\$5,000)** *Assessing impacts of best management practices on water quality in the Catalpa Creek Watershed.* Team: **CM Siegert**, HR Burton.
- 2015** Department of Biochemistry, Molecular Biology, Entomology, & Plant Pathology, Mississippi State University. **(\$2,000)** *High-throughput fungal sequencing and biogeochemistry to describe trophic cascade during blue stain-catalyzed decomposition of bark beetle killed wood.* Team: JJ Riggins, NA Clay, **CM Siegert**.
- Faculty Travel Grant, Southeastern Conference Academic Consortium **(\$1,250)**. Team: **CM Siegert**, R Keim.
- Institute for Genomics, Biocomputing & Biotechnology, Mississippi State University. **(\$5,000)** *High-throughput fungal sequencing and biogeochemistry to describe trophic cascade during blue stain-catalyzed decomposition of bark beetle killed wood.* Team: JJ Riggins, NA Clay, **CM Siegert**, JD Tang.
- Office of Research and Economic Development, Mississippi State University Cross-College Research Award. **(\$2,000)** *Towards a better understanding of decomposition processes in southern forests as influenced by complex interactions between environmental and biological factors.* Team: **CM Siegert**, JJ Riggins, NA Clay, JD Tang.

2014 College of Forest Resources/Forest and Wildlife Research Center Undergraduate Research Scholars Program, Mississippi State University. (**\$5,000**) *The influence of canopy-mediated hydrologic fluxes on understory microclimate, soil moisture, and coarse woody debris decomposition*. 2014-2016. Team: **CM Siegert**, LG Garrigues, JJ Riggins, NA Clay, JD Tang.

McIntire-Stennis Capacity Grant, National Institute of Food and Agriculture, United States Department of Agriculture. MISZ-069390 (**\$469,556, requested**) *Response of canopy-derived hydrologic and nutrient fluxes in southeastern forests to natural and anthropogenic disturbances*. 2014-2018. Team: **CM Siegert**.

Weyerhaeuser NR Company. (**\$75,000**). *Optimization of southeastern forest biomass crop production: a watershed scale evaluation of the sustainability and productivity of dedicated energy crop and woody biomass operations*. 2013-2017. Team: **CM Siegert**.

2012 Mather Graduate Research Award, Department of Geography, University of Delaware. (**\$500**) Using tree cores to reconstruct site history in a deciduous forest. Team: **CM Siegert**, F Zhang, DF Levia.

National Science Foundation. (**\$13,805**) Doctoral Dissertation Research: Synoptic climatological approaches to assessing subcanopy hydrologic and nutrient fluxes in a temperate deciduous forest. BCS-1233592. 2012-2014. Team: **CM Siegert**, DF Levia.

2011 RAISE Research Ethics Fellowship Grant, University of Delaware. (**\$1,000**)

2010 Professional Development Award, University of Delaware. (**\$500**)

2009 Professional Development Award, University of Delaware. (**\$500**)

PUBLICATIONS¹

Peer Reviewed – 17 manuscripts

1. Babl E^{††}, Alexander HD, **Siegert CM**, Willis JL. 2020. Could canopy, bark, and leaf litter traits of encroaching non-oak species influence future flammability of upland oak forests? *Forest Ecology and Management*, 117731.
2. Linhoss AC, **Siegert CM**. 2020. Calibration reveals limitations in modeling rainfall interception at the storm scale. *Journal of Hydrology* 54: 124624.
3. Limpert KE^{††}, **Siegert CM**. 2019. Interspecific differences in canopy-derived carbon and nitrogen in an upland oak-hickory forest. *Forests* 10: 1121.
4. Hornslein N^{††}, **Siegert CM**, Renninger HJ. 2019. Changes in physiological functioning in loblolly pine trees undergoing bark beetle simulated mortality. *Forest Science* 65: 312-323.
5. Hornslein N^{††}, **Siegert CM**, Renninger HJ. 2019. Physiological response of mid-canopy sweetgum trees to overstory loblolly pine mortality. *Trees – Structure and Function* 33: 139-151.
6. **Siegert CM**, Drotar NA^{††}, Alexander HD. 2019. Spatial and temporal variability of throughfall among oak and co-occurring non-oak tree species in an upland hardwood forest. *Geosciences* 9: 405.
7. Karwan, DL, Pizzuto JE, Aalto R, Marquard J, Harpold A, Skalak K, Bentham A, Levia DF, **Siegert CM**, Aufdenkampe A. 2018. Direct channel precipitation and storm characteristics influence short-term fallout radionuclide assessment of sediment sources. *Water Resources Research* 54: 4579-4594.
8. **Siegert CM**, Clay NA, Tang JD, Garrigues LG, Riggins JJ 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.

¹ ††Graduate Student, †Undergraduate Student
CM Siegert CV

9. **Siegert CM**, Leathers DJ, Levia DF. 2017. Synoptic typing: interdisciplinary application methods with three practical hydroclimatological examples. *Theoretical and Applied Climatology* 128: 603-621.
10. **Siegert CM**, Levia DF, Leathers DJ, Van Stan JT, Mitchell MJ. 2017. Do storm synoptic patterns affect biogeochemical fluxes from temperate deciduous forest canopies? *Biogeochemistry* 132: 273-292.
11. Karwan DF, **Siegert CM**, Levia DF, Pizzuto J, Marquard J, Aalto R, Aufdenkampe AK. 2016. Beryllium-7 wet deposition variation with storm height, synoptic classification, and tree canopy state in the mid-Atlantic USA. *Hydrological Processes* 30: 75-89.
12. Linhoss AC, **Siegert CM**. 2016. A comparison of five forest interception models using global sensitivity and uncertainty analysis. *Journal of Hydrology* 538: 109-116.
13. **Siegert CM**, Levia DF, Hudson SA^{††}, Downtin AL^{††}, Zhang F, Mitchell MJ. 2016. Small-scale topographic variability influences tree species distribution and canopy throughfall partitioning in a temperate deciduous forest. *Forest Ecology and Management* 359, 109:117.
14. **Siegert CM**, Levia DF. 2014. Seasonal and meteorological effects on differential stemflow funneling ratios for two deciduous tree species. *Journal of Hydrology* 519: 446-454.
15. Levia DF, Van Stan JT, **Siegert CM**, Inamdar SP, Mitchell MJ, Mage SM[†], McHale PJ. 2011. Atmospheric deposition and corresponding variability of stemflow chemistry across temporal scales in a mid-Atlantic broadleaved deciduous forest. *Atmospheric Environment* 45: 3046-3054.
16. **Siegert CM**, Levia DF. 2011. Stomatal conductance and transpiration of co-occurring seedlings with varying shade tolerance. *Trees: Structure and Function* 25: 1091-1102.
17. Van Stan JT, **Siegert CM**, Levia DF, Scheick CE[†]. 2011. Effects of wind-driven rainfall on interception and stemflow generation between codominant tree species with differing crown characteristics. *Agricultural and Forest Meteorology* 151: 1277-1286.

Conference Proceedings, Peer Reviewed – 2 manuscripts

1. **Siegert CM**, Limpert KE^{††}, Drotar NA^{††}, Siegle-Gaither ML^{††}, Burton M[†], Lowery JA^{††}, Alexander HD. (Accepted). Effects of canopy structure on water: implications for changing forest composition. *Proceedings of the 20th Biennial Southern Silvicultural Conference*.
2. **Siegert CM**, Renninger HJ, Karunarathna AAS, Riggins JJ, Clay NA, Tang JD, Hornslein N, Chaney BL. 2018. Biogeochemical hotspots around bark-beetle killed trees. In Kirschman, Julia E., comp. 2018. *Proceedings of the 19th Biennial Southern Silvicultural Research Conference*. e-Gen. Technical Report SRS-234. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 444 p.

Conference Proceedings, Not Peer Reviewed – 7 manuscripts

1. Linhoss A, **Siegert C**, Levia D. 2017. Calibration and comparison of forest canopy interception models. *Proceedings of the 2017 Mississippi Water Resources Conference*, p. 86.
2. **Siegert C**. 2017. Weather map classification as a tool for the hydroclimatological community. *Proceedings of the 2017 Mississippi Water Resources Conference*, p. 101.
3. Siegle-Gaither M^{††}, **Siegert C**, Keim R. 2017. Using deuterium and oxygen-18 isotopes to understand stemflow generation mechanisms. *Proceedings of the 2017 Mississippi Water Resources Conference*, p. 19.
4. Limpert K^{††}, **Siegert C**, Karunarathna A. 2016. Ecological significance of phyllosphere leaf traits on throughfall hydrology, biogeochemistry and leaf litter among *Quercus* species in the southeastern United States. *Proceedings of the 2016 Mississippi Water Resources Conference*, p. 16.
5. Linhoss AC, **Siegert CM**. 2016. A comparison of five forest interception models using global sensitivity and uncertainty analysis. *Proceedings of the 2016 Mississippi Water Resources Conference*, p. 92.
6. **Siegert CM**, Limpert KE^{††}, Karunarathna AAS. 2016. Interspecific ecological and meteorological controls on forest canopy-derived hydrology and biogeochemistry in the southeastern United States. *Proceedings of the 2016 Mississippi Water Resources Conference*, p. 116-128.

7. Siegle-Gaither M^{††}, **Siegert C**, Keim R. 2016 Using deuterium and oxygen-18 stable isotopes to understand mechanisms of stemflow generation as a function of tree species and climate. *Proceedings of the 2016 Mississippi Water Resources Conference*, p. 23.

Book Chapters – 1 chapter

1. **Siegert CM**. 2012. Delaware. In K.K. White and L.A. Duram (Eds.), *America Goes Green [3 volumes]: An Encyclopedia of Eco-friendly Culture in the United States*. Santa Barbara, ABC-Clio, 1237 p.

PRESENTATIONS

Oral Presentations – 26 presentations

1. Kyaw TY^{††}, Renninger HJ, **Siegert CM**. 2019. Determining which spectral bands are highly correlated with photosynthetic capacity of a poplar plantation. *Society of American Foresters*. October 30 – November 3. Louisville, Kentucky. Presenter: Kyaw.
2. Alexander HD, Nation R[†], Izbicki B^{††}, McDaniel JK^{††}, Paulson A, Lashley MA, **Siegert CM**, McEwan RW. 2019. Fire impacts on oak acorn germination and early establishment and oak seedling growth relative to co-occurring competitors. *Ecological Society of America*. August 12-16. Louisville, Kentucky. Presenter: Alexander.
3. **Siegert CM**, Drotar NA^{††}, Alexander HD, Burton M[†], Lowery JA[†]. 2019. Water and nutrient availability in upland oak forests: species-specific response to prescribed fire. *Ecological Society of America*. August 12-16. Louisville, Kentucky. Presenter: Siegert
4. Alexander HD, **Siegert M**, Izbicki B^{††}, Paulson A, Nation R[†], Denny G, Babl E^{††}, McDaniel J^{††}, Lashley M, Drotar N^{††}, Frey B, McEwan R. 2019. Prescribed fire, oak regeneration, and future forest flammability. *Fire in Eastern Oak Forests*. July 23-25. State College, Pennsylvania. Presenter: Alexander.
5. **Siegert CM**, Limpert KE^{††}, Drotar NA^{††}, Siegle-Gaither ML^{††}, Alexander HD. 2019. Effects of canopy structure on water and nutrient cycles: Implications for changing forest composition in the Central Hardwoods. *20th Biennial Southern Silvicultural Research Conference*. March 13-14. Shreveport, Louisiana. Presenter: Siegert.
6. Babl E^{††}, Alexander HD, **Siegert CM**, Willis JL, Berry AI. 2018. Do mesophyte canopy, bark, and leaf litter traits drive future flammability of upland oak forests? *Ecological Society of America*. August 6 – 9. New Orleans, Louisiana. Presenter: Babl. *Invited*.
7. Drotar NA^{††}, **Siegert CM**, Alexander HD, Varner JM. 2018. Impacts of oaks vs mesophytes on water partitioning in relation to prescribed burning in an upland oak forest. *Ecological Society of America*. August 6 – 9. New Orleans, Louisiana. Presenter: Drotar. *Invited*.
8. **Siegert CM**, Clay NA, Tang JD, Garrigues LG, Riggins JJ. 2018. Short-term carbon and nitrogen dynamics of coarse woody debris decomposition: interactions among bark beetles and fungi [and subterranean termites]. *Ecological Society of America*. August 6 – 9. New Orleans, Louisiana. Presenter: Siegert.
9. Morin C^{††}, Tang J, **Siegert C**, Little N, Riggins J, Clay N. 2018. Ant and detrital communities impacted by bluestain fungi (Ascomycota: Ophiostomatoid) inoculation in coarse woody debris. *College of Applied and Natural Sciences Research Day, Louisiana Tech University*. April 12. Ruston, LA. Presenter: Morin.
10. Dearing NA^{††}, Krishnan N, Clay NA, Tang J, **Siegert CM**, Riggins JJ. 2018. Physiological effects on native subterranean termites from feeding on wood infected with blue-stain fungi. *Southern Appalachian Forest Entomology and Pathology Seminar*. March 3. Crossnore, NC. Presenter: Dearing.
11. **Siegert CM**, Renninger H, Karunarathna S, Hornslein N, Riggins J, Clay N, Tang J, Chaney B[†], Drotar N^{††}. 2017. Biogeochemical hotspots following a simulated tree mortality event of southern pine beetle. *American Geophysical Union Annual Meeting*. December 11-15. New Orleans, Louisiana. Presenter: Siegert.

12. Alexander HD, **Siegert C**, Lashley M, Izbicki B^{††}, Babl E^{††}, Arthur M. 2017. Prescribed fire, oak regeneration, and future forest flammability. *Sustaining Oak Forests in the 21st Century through Science-based Management*. Knoxville, Tennessee. October 24 – 26. Presenter: Alexander.
13. Alexander HD, **Siegert CM**. 2017. Mesophication of eastern oak forests: vulnerability and resilience with the loss of fire disturbances. *Oak Woodlands and Forest Fire Consortium*. Webinar. October 10. <http://www.oakfirescience.com/events-webinars-source/2017/9/18/dr-heather-alexander-webinar>
Presenter: Alexander.
14. Riggins JJ, Clay NA, **Siegert CM**, Tang J. 2017. Unlikely partners: Bark Beetles, Ophiostomatoid fungi, and subterranean termites. *International Union of Forestry Research Organizations: Forest Insects and Pathogens in a changing environment: ecology, monitoring, and genetics*. September 12. Thessaloniki, Greece. Presenter: Riggins.
15. Linhoss AC, **Siegert CM**. 2017. Calibration and comparison of forest canopy interception models. *Mississippi Water Resources Conference*. April 11-12. Jackson, Mississippi. Presenter: Linhoss.
16. **Siegert CM**. 2017. Weather map classification as a tool for the hydroclimatological community. *Mississippi Water Resources Conference*. April 11-12. Jackson, Mississippi. Presenter: Siegert.
17. **Siegert CM**, Renninger HJ, Karunarathna S, Riggins JJ, Clay NA, Tang JT, Hornslein N[†], Chaney BL^{††}. 2017. Biogeochemical hotspots around bark beetle-killed trees: carbon sinks or carbon sources? *19th Biennial Southern Silvicultural Research Conference*. March 14-15. Blacksburg, Virginia. Presenter: Siegert.
18. Clay NA, Little NS, **Siegert CM**, Tang J, Riggins JJ. 2016. Interactions among bark beetles, blue stain fungi, and termites: Impacts on decomposition and diversity. *International Congress of Entomology*. September 25-30. Orlando, Florida. Presenter: Clay.
19. Karwan D, Pizzuto J, Aalto R, Marquard J, Aufdenkampe A, Bentham A, Skalak K, Levia D, **Siegert C**. 2016. Short-term fallout radionuclide ratios and mass balance identify new suspended sediments of channel origin and importance of catchment flowpath. *European Geophysical Union*. April 17-22. Vienna, Austria. Presenter: Karwan.
20. **Siegert CM**, Limpert KE^{††}, Karunarathna SSA. 2016. Interspecific ecological and meteorological controls on forest canopy-derived hydrology and biogeochemistry in the southeastern United States. *Mississippi Water Resources Conference*. April 5-6. Jackson, Mississippi. Presenter: Siegert.
21. Karwan DF, **Siegert CM**, Levia DF, Pizzuto J, Marquard J, Aalto R, Aufdenkampe A. 2015. Short-term fallout radionuclide ratios and mass balance identify new suspended sediments of channel origin. *American Geophysical Union Annual Meeting*. December 14-18. San Francisco, California. Presenter: Karwan.
22. Riggins J, Clay N, Little N, **Siegert C**, Tang J, Gamblin L[†]. 2015. Hitchhiker or harbinger: where do bluestain fungi fit in forest food webs? *Entomological Society of America Annual Meeting*. November 15-18. Minneapolis, Minnesota. Presenter: Riggins.
23. Gordon J, Henderson J, Bailey B, Bales D, Dicke S, Hughes G, Kushla J, Rousseau R, Self B, **Siegert C**, Willis J. 2015. Climate change education in forestry extension: a case study from Mississippi. *International Society of Forest Resource Economics*. Vancouver, British Columbia, May 31-June 2. Presenter: Gordon.
24. Henderson J, Gordon J, Dicke S, Hughes G, Kushla J, Self B, **Siegert C**, Grebner D, Khanal P^{††}. 2015. Climate change related extreme weather events and risk management options for family forests. *99th Annual Meeting and Professional Improvement Conference of the National Association of County Agricultural Agents*. July 20-24. Mobile, Alabama. Presenter: Henderson.
25. **Siegert CM**, Levia DF, Leathers DJ. 2012. Using synoptic climatology to forecast forest subcanopy hydrologic flux. *Annual Meeting Association of American Geographers*. February 24-28. New York, New York. Presenter: Siegert.
26. **Siegert C**, Karwan D, Levia D, Van Stan J, Inamdar S, Mitchell M, McHale P, Price A, Scheick C, Lepori-Bui M. 2011. Subcanopy hydrologic and solute fluxes as influenced by vegetation, seasonality, and

meteorology at a CZO satellite site in Fair Hill, MD. *SoilTrEC- Designing an International Observatory Network*. November 9-11. University of Delaware, Newark, Delaware. Presenter: Siegert.

Poster Presentations – 65 posters

1. McAndrew K^{††}, Clay N, **Siegert C**, Tang J, Riggins J. 2019. Emergent methods for estimating invertebrate biodiversity in dead wood. *Entomological Society of America*. November 17-20. St. Louis, Missouri. Poster.
2. Kruckeberg W^{††}, **Siegert C**, Alexander H, Granger J. 2019. Impacts of prescribed fire on soil erosion potential in northern Mississippi. *Ecological Society of America*. August 12-16. Louisville, Kentucky.
3. Kyaw TY^{††}, Renninger H, **Siegert C**, Rousseau R. 2019. Nitrogen mitigation potential of short rotation woody crops in riparian areas of Lower Mississippi Alluvial Valley. *Ecological Society of America*. August 12-16. Louisville, Kentucky.
4. Leonard L^{††}, Renninger HJ, Alexander HD, **Siegert CM**, Rousseau RJ. 2019. Using physiological parameters to refine estimates of short rotation poplar performance and productivity. *Ecological Society of America*. August 12-16. Louisville, Kentucky.
5. McDaniel JK^{††}, Alexander HD, **Siegert CM**, Lashley MA. 2019. Mesophication of upland oak forests: shifting species composition alters fuelbed flammability. *Ecological Society of America*. August 12-16. Louisville, Kentucky.
6. McDaniel JK^{††}, Alexander HD, **Siegert CM**, Lashley MA. 2019. Shifting species composition of upland oak forests alters fuelbed flammability. *Fire in Eastern Oak Forests*. July 23-25. State College, Pennsylvania.
7. Lowery, JA[†], **Siegert CM**, Renninger HJ, Rousseau R. 2019. Hydrological effects of short rotation woody crops. *Mississippi State University Undergraduate Research Symposium*. April 16. Mississippi State, Mississippi.
8. Drotar NA^{††}, **Siegert C**, Alexander H, Granger J. 2019. Comparing the effects of fire on water use in oak and mesophytic species. *Southern Hardwood Forest Research Group Meeting*. April 25, 2019. Stoneville, Mississippi. Poster.
9. Kruckeberg W^{††}, **Siegert C**, Alexander H, Granger J. 2019. Impacts of prescribed fire on erosion potential in upland hardwood forests. *Southern Hardwood Forest Research Group Meeting*. April 25, 2019. Stoneville, Mississippi. Poster.
10. Kyaw TY^{††}, Renninger H, **Siegert C**, Rousseau R. 2019. Survival and growth performance of short rotation woody crops in the Lower Mississippi Alluvial Valley. *Southern Hardwood Forest Research Group Meeting*. April 25, 2019. Stoneville, Mississippi. Poster. 2nd Place, Student Poster Competition.
11. Leonard L^{††}, Renninger HJ, Alexander HD, **Siegert CM**, Rousseau RJ. 2019. Using physiological parameters to refine estimates of short rotation poplar performance and productivity. *Southern Hardwood Forest Research Group Meeting*. April 25, 2019. Stoneville, Mississippi. Poster.
12. Drotar NA^{††}, **Siegert C**, Alexander H, Granger J. 2019. Effects of prescribed burning on canopy structure and water partitioning in an upland oak forest. *Quarterly Meeting of the Society of American Foresters Mississippi Loblolly Chapter*. April 4, 2019. Starkville, Mississippi. Poster. (Invited)
13. Kruckeberg W^{††}, **Siegert C**, Alexander H, Granger J. 2019. Impacts of prescribed fire on erosion potential in upland hardwood forests. *Quarterly Meeting of the Society of American Foresters Mississippi Loblolly Chapter*. April 4, 2019. Starkville, Mississippi. Poster. (Invited)
14. Kyaw TY^{††}, Renninger H, **Siegert C**, Rousseau R. 2019. Multifunctional ecosystems: nitrogen mitigation by short rotation woody crops in the Lower Mississippi Alluvial Valley. *Quarterly Meeting of the Society of American Foresters Mississippi Loblolly Chapter*. April 4, 2019. Starkville, Mississippi. Poster. (Invited)
15. Drotar NA^{††}, **Siegert C**, Alexander H, Granger J. 2019. Effects of prescribed burning on canopy structure and water partitioning in an upland oak forest. *20th Biennial Southern Silvicultural Research Conference*. March 13-14. Shreveport, Louisiana. Poster.

16. Kruckeberg W^{††}, **Siegert C**, Alexander H, Granger J. 2019. Impacts of prescribed fire on erosion potential in upland hardwood forests. *20th Biennial Southern Silvicultural Research Conference*. March 13-14. Shreveport, Louisiana. Poster.
17. Hudson S^{††}, Llorens P, **Siegert CM**, Dowtin AL, Van Stan JT, Levia DF. 2018. Stemflow infiltration and soil water potential dynamics on a forested hill-slope in the Mid-Atlantic US. *American Geophysical Union Annual Meeting*. December 10-14. Washington, DC. Poster.
18. **Siegert CM**, Limpert KE^{††}, Drotar NA^{††}, Siegle-Gaither^{††}, Alexander HD. 2018. Effects of canopy structure on water and nutrient cycling: implications for changing forest composition. *American Geophysical Union Annual Meeting*. December 10-14. Washington, DC. Poster.
19. McDaniel JK^{††}, Alexander HD, **Siegert CM**, Lashley MA. 2018. Mesophication of upland oak forests: Impact on flammability through changes in leaf litter and fuel bed traits. *Ecological Society of America*. August 6 – 9. New Orleans, Louisiana. Poster.
20. Morrin CM^{††}, Tang JD, **Siegert CM**, Little N, Riggins JJ, Clay NA. 2018. Bluestain fungi (Ascomycota: Ophiostomatoid) increases ant diversity and mediates decomposer communities in coarse woody debris. *Ecological Society of America*. August 6 – 9. New Orleans, Louisiana. Poster.
21. Burton MF[†], **Siegert CM**, Alexander HD, Lashley M. 2018. Changes to soil properties following fire in upland oak forests. *MSU Undergraduate Research Symposium*. April 13. MS State, MS.
22. Britton M[†], **Siegert C**, Limpert K^{††}, Clay N. 2018. Input of invertebrate biomass following storm events links aboveground and belowground systems. *College of Applied and Natural Sciences Research Day, Louisiana Tech University*. April 12. Ruston, LA. 1st Place, Undergraduate Poster Competition.
23. Drotar NA^{††}, **Siegert CM**, Alexander HD, Varner JM. 2018. Effects of prescribed burning on canopy structure and water partitioning in an upland oak forest. *Mississippi Water Resources Conference*. April 3-4. Jackson, MS. 3rd Place, Student Poster Competition.
24. Babl EK^{††}, Alexander HD, **Siegert CM**, Willis JL, Barry AI. 2018. Do mesophyte canopy and leaf litter traits drive future flammability of upland oak forests? *Annual Southern Hardwood Forest Research Group Meeting*. March 6. Stoneville, Mississippi. Poster.
25. Drotar^{††} N, **Siegert CM**, Alexander HD, Varner JM. 2018. Comparing the effects of fire on water use in oak and mesophytic species. *Annual Southern Hardwood Forest Research Group Meeting*. March 6. Stoneville, Mississippi. Poster.
26. McDaniel JK^{††}, Alexander HD, **Siegert CM**, Lashley MA. 2018. Mesophication of upland oak forests: Impacts on flammability through changes in leaf litter and fuel bed traits. *Annual Southern Hardwood Forest Research Group Meeting*. March 6. Stoneville, Mississippi. Poster.
27. Babl EK^{††}, Alexander HD, **Siegert CM**, Willis JL, Barry AI. 2017. Species specific mechanisms contributing to the mesophication of upland oak stands in the absence of fire. *American Geophysical Union Annual Meeting*. December 11-15. New Orleans, Louisiana. Poster.
28. Renninger HJ, Hornslein N, **Siegert CM**. 2017. Changes in water, nitrogen and carbon cycling in loblolly pine (*Pinus taeda* L.) during a mortality event. *American Geophysical Union Annual Meeting*. December 11-15. New Orleans, Louisiana. Poster.
29. Babl EK^{††}, Alexander HD, **Siegert CM**, Willis JL, Barry AI. 2017. Species specific mechanisms contributing to the mesophication of upland oak forests. *Oak Symposium: Sustaining Oak Forests in the 21st Century through Science-based Management*. October 24 – 26. Knoxville, Tennessee. Poster.
30. Burton HR[†], **Siegert CM**, Omer AR, Baker BH, Goodridge B. 2017. Assessing impacts of best management practices on water quality in the Catalpa Creek Watershed. *Mississippi State University Undergraduate Research Symposium*. April 13. Mississippi State, Mississippi. Poster- 3rd Place, Arts and Humanities Category.
31. Webb WA[†], Babl EK^{††}, **Siegert CM**, Alexander HD. 2017. Variations in post-precipitation leaf litter moisture among species in upland oak forests within the eastern U.S. *Mississippi State University Undergraduate Research Symposium*. April 13. Mississippi State, Mississippi. Poster.

32. Siegle-Gaither ML^{††}, **Siegert CM**, Keim RF. 2017. Using deuterium and oxygen-18 isotopes to understand stemflow generation mechanisms. *Mississippi Water Resources Conference*. April 11-12. Jackson, Mississippi. Poster- 1st Place, Student Poster Competition.
33. Babl EK^{††}, Alexander HD, **Siegert CM**, Willis JL. 2017. Species specific mechanisms contributing to the mesophication of upland oak forests. *Association of Southeastern Biologists 78th Annual Meeting*. March 29 – April 1. Montgomery, Alabama. Poster.
34. Webb WA[†], Alexander HD, **Siegert CM**. 2017. Species-specific leaf litter traits influence forest bed flammability. *Association of Southeastern Biologists 78th Annual Meeting*. March 29 – April 1. Montgomery, Alabama. Poster.
35. Siegle-Gaither ML^{††}, **Siegert CM**, Keim RF. 2017. Using deuterium and oxygen-18 isotopes to understand stemflow generation mechanisms. *Mississippi State University Graduate Student Association Research Symposium*. March 25. Mississippi State, Mississippi. Poster- 1st Place, Life and Biological Sciences and Engineering Category.
36. Babl EK^{††}, Alexander HD, **Siegert CM**, Willis JL. 2017. Species specific mechanisms contributing to the mesophication of upland oak forests. *Southern Hardwood Forest Research Group Annual Meeting*. February 23. Stoneville, Mississippi. Poster.
37. Siegle-Gaither ML^{††}, **Siegert CM**, Keim RF. 2017. Using deuterium and oxygen-18 isotopes to understand stemflow generation mechanisms. *Southern Hardwood Forest Research Group Annual Meeting*. February 23. Stoneville, Mississippi. Poster- 2nd Place, Student Poster Competition.
38. Bankston JB[†], Alexander HD, **Siegert CM**. 2016. Hickory leaf litter alters decomposition rates in upland oak forests of the Southeastern U.S. *Society of American Foresters*. November 2-6. Madison, Wisconsin. Poster.
39. Garrigues LG[†], **Siegert CM**, Riggins JJ, Clay NA. 2016. The influence of canopy-mediated hydrologic fluxes and understory microclimate on soil properties. *Ecological Society of America Annual Meeting*. August 7-12. Fort Lauderdale, Florida. Poster.
40. Landfield JC^{††}, **Siegert CM**. 2016. Measurements of hydrologic and biogeochemical fluxes of stemflow and soil quality from southern pine beetle outbreaks in southern forests. *Ecological Society of America Annual Meeting*. August 7-12. Fort Lauderdale, Florida. Poster.
41. Limpert KE^{††}, **Siegert CM**, Karunarathna S. 2016. Interspecific differences of throughfall hydrology, biogeochemistry, and leaf litter content among *Quercus* species in the Southeastern United States. *Ecological Society of America Annual Meeting*. August 7-12. Fort Lauderdale, Florida. Poster.
42. Siegle-Gaither ML^{††}, **Siegert CM**, Keim R. 2016. Using deuterium and oxygen-18 stable isotopes to understand mechanisms of stemflow generation as a function of tree species and climate. *Ecological Society of America Annual Meeting*. August 7-12. Fort Lauderdale, Florida. Poster.
43. Bankston JB[†], Alexander HD, **Siegert CM**. 2016. Hickory leaf litter alters decomposition rates in upland oak forests of the Southeastern U.S. *Mississippi State University Undergraduate Research Symposium*. April 15. Starkville, Mississippi. Poster.
44. Garrigues LG[†], **Siegert CM**. 2016. The influence of throughfall partitioning on forest nutrient dynamics. *Mississippi State University Undergraduate Research Symposium*. April 15. Starkville, Mississippi. Poster.
45. Limpert KE^{††}, **Siegert CM**. 2016. Ecological significance of phyllosphere leaf traits on throughfall hydrology, biogeochemistry and leaf litter amount *Quercus* species in the southeastern United States. *Mississippi Water Resources Conference*. April 5-6. Jackson, Mississippi. Poster.
46. Siegle-Gaither ML^{††}, **Siegert CM**, Keim R. 2016. Using deuterium and oxygen-18 stable isotopes to understand mechanisms of stemflow generation as a function of tree species and climate. *Mississippi Water Resources Conference*. April 5-6. Jackson, Mississippi. Poster.
47. Limpert KE^{††}, **Siegert CM**. 2016. Ecological significance of phyllosphere leaf traits on throughfall hydrology, biogeochemistry and leaf litter amount *Quercus* species in the southeastern United States. *Southern Hardwood Forest Research Group Annual Meeting*. February 18. Stoneville, Mississippi. Poster.

48. Siegle-Gaither M^{††}, Siegert CM, Keim R. 2016. Using deuterium and oxygen-18 stable isotopes to understand mechanisms of stemflow generation as a function of tree species and climate. *Southern Hardwood Forest Research Group Annual Meeting*. February 18. Stoneville, Mississippi. Poster.
49. **Siegert CM**, Levia DF, Downtin A^{††}, Hudson SA^{††}, Linhoss AC. 2015. Using sensitivity analysis and fine-scale field measurements to understand how canopy interception models function. *American Geophysical Union Annual Meeting*. December 14-18. San Francisco, California. Poster.
50. Limpert K^{††}, **Siegert C**, Karunarathna S. 2015. Ecological significance of phyllosphere leaf traits on throughfall hydrology, biogeochemistry, and leaf litter among *Quercus* species in the southeastern United States. *Ecological Society of America Annual Meeting*. August 10-14. Baltimore, Maryland. Poster.
51. **Siegert C**, Limpert K^{††}, Karunarathna S. 2015. Interspecific ecological and meteorological controls on forest canopy-derived hydrology and biogeochemistry in the southeastern United States. *Ecological Society of America Annual Meeting*. August 10-14. Baltimore, Maryland. Poster.
52. Karwan DF, **Siegert CM**, Levia DF, Pizzuto J, Marquard J, Aalto R, Aufdenkampe A. 2015. Why sediment fingerprinting must consider catchment hydrologic processes: Beryllium-7 event-scale variation in wet deposition and fluvial export on suspended sediment. *Gordon Research Conference on Catchment Science: Interactions of Hydrology, Biology & Geochemistry*. Andover, New Hampshire. June 14-19. Poster.
53. Henderson J, Gordon J, Dicke S, Hughes G, Kushla J, Self B, Willis J, **Siegert C**, Grebner D. 2015. Climate change related extreme weather events and risk management options for family forests. *European Seminar on Extension and Education and the Association for International Agricultural and Extension Education*. April 27-May 2. Wageningen, The Netherlands. Poster.
54. Garrigues L[†], **Siegert C**, Riggins J, Clay N. 2015. The influence of canopy-mediated hydrologic fluxes & understory microclimate on soil properties. *Mississippi State University Undergraduate Research Symposium*. April 23. Mississippi State, Mississippi. Poster.
55. Gamblin L[†], Clay N, Riggins J, **Siegert C**. 2015. Soil Respiration and Invertebrate Populations. *Mississippi State University Undergraduate Research Symposium*. April 23. Mississippi State, Mississippi. Poster.
56. Limpert K^{††}, **Siegert C**. 2015. The effects of marcescent leaves on throughfall hydrology, biogeochemistry, and leaf litter of *Quercus* species. *Southern Hardwood Forest Research Group Annual Meeting*. February 19. Stoneville, Mississippi. Poster.
57. **Siegert CM**, Levia DF, Leathers DJ, Van Stan JT, Mitchell MJ. 2014. Identifying patterns of forest hydrologic and biogeochemical fluxes using weather map classification in a Mid-Atlantic deciduous forest. *American Geophysical Union Annual Meeting*. December 15-19. San Francisco, California. Poster.
58. **Siegert CM**, Levia DF, Leathers DJ, Zhang F. 2013. Synoptic climatological approaches to assessing subcanopy hydrology and nutrient fluxes in a temperate deciduous forest. *Northeastern Ecosystem Research Cooperative Conference*. March 19-20. Saratoga Springs, New York. Poster.
59. Van Stan J, **Siegert CM**, Levia DF, Sheick CE. 2013. Differential stemflow generation due to crown structural interactions with wind-driven rainfall. *European Geosciences Union General Assembly*. April 7-12. Vienna, Austria. Poster (Invited).
60. Karwan DL, Levia DF, **Siegert CM**, Pizzuto J. 2012. Beryllium-7 wet deposition in open precipitation and canopy throughfall. *American Geophysical Union Annual Meeting*. December 9-13. San Francisco, California. Poster.
61. **Siegert CM**, Levia DF, Leathers DJ. 2012. Synoptic climatological approaches to assessing subcanopy hydrologic and nutrient fluxes in a temperate deciduous forest. *American Geophysical Union Annual Meeting*. December 9-13. San Francisco, California. Poster.
62. Van Stan J, **Siegert CM**, Levia DF, Sheick CE. 2012. Effects of directional wind-driven rainfall on the spatial variability and magnitude of stemflow inputs to forest soils from co-dominant species of differing crown characteristics. *Annual Meeting Association of American Geographers*. February 24-28. New York, New York. Poster.

63. Levia DF, Van Stan JT, **Siegert CM**, Inamdar S, Mitchell M, Mage S, McHale P. 2010. Atmospheric deposition and corresponding variability of throughfall and stemflow chemistry across temporal scales in a mid-Atlantic broadleaved deciduous forest. *American Geophysical Union Annual Meeting*. December 13-17. San Francisco, California. Poster.
64. **Siegert CM**, Levia DF. 2010. Seedling stomatal conductance and transpiration response to microclimate: a case study of naturally occurring species of varying shade tolerance. *American Geophysical Union Annual Meeting*. December 13-17. San Francisco, California. Poster.
65. **Siegert CM**, Levia DF. 2009. An investigation into the transpiration and stomatal conductance rates of three co-occurring seedling species of varying shade tolerance. *Annual Meeting Association of American Geographers*. March 22-27. Las Vegas, Nevada. Poster.

Other Scholarly Presentations – 8 presentations

1. Alexander HD, Berry A, **Siegert CM**, Paulson A. 2019. Ecological Society of America Field Trip: Exploring Bernheim Arboretum and Research Forest: From Fire Ecology to Streamside Restoration to Beautiful Gardens.
2. Riggins JJ, Clay NA, Tang JD, **Siegert CM**, Levarón O, Hofstetter R. 2018. Bark beetles, decomposers, and the carbon cycle. Universidad Nacional de Ciencias Forestales. June 27. Siguatepeque, Honduras. Presenter: Riggins. (Invited)
3. Clay NA, Tang JD, **Siegert CM**, Riggins JJ, Levarón O, Hofstetter R. 2018. Decomposition and decomposers. Universidad Nacional de Ciencias Forestales. June 27. Siguatepeque, Honduras. Presenter: Clay. (Invited)
4. Tang JD, **Siegert CM**, Riggins JJ, Clay NA, Levarón O, Hofstetter R. 2018. Role of fungi in biodeterioration. Universidad Nacional de Ciencias Forestales. June 27. Siguatepeque, Honduras. Presenter: Tang. (Invited)
5. **Siegert CM**, Riggins JJ, Clay NA, Tang JD, Levarón O, Hofstetter R. 2018. Bark beetles and nutrient cycles. Universidad Nacional de Ciencias Forestales. June 27. Siguatepeque, Honduras. Presenter: **Siegert**. (Invited)
6. Water and nutrient cycles in forest ecosystems: the role of the tree canopy. Georgia State University, Department of Geosciences, Atlanta, Georgia. January 23, 2018. (Invited)
7. Riggins JJ, Clay NA, Tang J, **Siegert CM**, Levarón O, Hofstetter R. 2017. Bark beetles, decomposers, and the carbon cycle. National Dialog on Southern Pine Beetle Risk Mitigation. June 17. Tegucigalpa, Honduras. Presenter: Riggins. (Invited)
8. Identifying patterns of forest hydrologic and biogeochemical fluxes using weather map classification. University of Alabama, Department of Geography. November 6, 2015. (Invited).
9. Assessing subcanopy biogeochemical fluxes in an eastern deciduous forest in the U.S. using methods from synoptic climatology. Louisiana State University School of Renewable Natural Resources. March 12, 2014. (Invited).

Non-Scholarly Presentations – 14 presentations

1. Forestry Best Management Practices for Water Quality. Advisory Board Meeting for Enviva Biomass. November 19, 2019. (Invited).
2. Water and Nutrients in Forest Ecosystems: the Role of the Tree Canopy. Quarterly Meeting of the Society of American Foresters Mississippi Loblolly Chapter. April 4, 2019. (Invited).
3. Water and Nutrients in Forest Ecosystems: the Role of the Tree Canopy. Louisiana Tech University Department of Biological Sciences Seminar. October 1, 2018. (Invited).
4. Forests and the Water Cycle. Quarterly Meeting of the Benton County Forestry Association. September 15, 2016. (Invited)

5. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Holly Springs, Mississippi. February 10, 2016.
6. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Biloxi, Mississippi. September 18, 2015.
7. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Yalobusha, Mississippi. September 13, 2015.
8. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Quitman, Mississippi. March 30, 2015.
9. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Senatobia, Mississippi. March 26, 2015.
10. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Magnolia, Mississippi. March 23, 2015.
11. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Rankin, Mississippi. March 16, 2015.
12. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Grenada, Mississippi. March 12, 2015.
13. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Starkville, Mississippi. March 3, 2015.
14. Extreme Weather Events and Risk Management Options for Family Forests: Preparing for the Future: Weather and Climate Trends in Mississippi. Mississippi State University Extension Forestry Workshop. Belden, Mississippi. February 27, 2015.

PROFESSIONAL ACTIVITIES

2019 Ecological Society of America Field Trip: Exploring Bernheim Arboretum and Research Forest: From Fire Ecology to Streamside Restoration to Beautiful Gardens. Organizers: Alexander HD (Chair), Berry A, **Siegert CM** (Co-Chair), Paulson A.

20th Biennial Southern Silvicultural Research Conference: Student Competition Judge.

2018 Ecological Society of America Organized Oral Session OOS 28: Mesophication of Eastern Oak Forests: Vulnerability and Resilience with the Loss of Fire Disturbances. Organizers: Alexander HD (Chair), **Siegert CM** (Moderator), Varner JM.

2017 American Geophysical Union Conference Session B51E: Impacts to Water and Nutrient Cycles in Ecosystems Following Disturbance I Posters. Organizers: Atkins JW, **Siegert CM** (Chair), Alexander HD, Renninger HJ.

American Geophysical Union Conference Session B54B: Impacts to Water and Nutrient Cycles in Ecosystems Following Disturbance II. Organizers: Atkins JW, **Siegert CM** (Chair), Alexander HD, Renninger HJ.

American Geophysical Union Annual Meeting: Outstanding Student Poster Awards Judge.

Mississippi Water Resources Conference Session: Climate and Agronomics. Moderator: **Siegert, CM.**

Mississippi Water Resources Conference: Student Competition Judge.

19th Biennial Southern Silvicultural Research Conference: Student Competition Judge.

2016 Mississippi Water Resources Conference Session: Ecohydrology/Hydrology II. Moderator: **Siegert, CM.**

2015 American Geophysical Union Conference Session H11G: Precipitation-Vegetation Interactions: Advances in Interception Loss, Throughfall and Stemflow Research I Posters. Organizers: Carlyle-Moses D, Levia DF, **Siegert CM**, Van Stan JT.

American Geophysical Union Conference Session H13Q: Precipitation-Vegetation Interactions: Advances in Interception Loss, Throughfall and Stemflow Research II. Organizers: Carlyle-Moses D, Levia DF, **Siegert CM** (Co-Chair), Van Stan JT.

American Geophysical Union Annual Meeting: Outstanding Student Poster Awards Judge.

Ecological Society of America: Buell and Bran Awards Student Poster Competition Judge.

Mississippi Water Resources Conference: Spatial and temporal controls on surface and groundwater hydrology in the Mississippi Delta: novel methods, measurements, and modeling. Organizers: **Siegert CM**, Linhoss A.

2014 American Geophysical Union Annual Meeting: Outstanding Student Poster Awards Judge.

2013 American Geophysical Union Annual Meeting: Outstanding Student Poster Awards Judge.

TEACHING

2013-current **Mississippi State University, Department of Forestry**

Instructor of Record

FO 3012 Introduction to Forest Communities

FO 4000 Directed Individual Study: Forest Hydrology & Fire

FO 4000 Directed Individual Study: Hydrology of Short Rotation Woody Crops

FO 4000 Directed Individual Study: Research and Professional Development

FO 4000 Directed Individual Study: Research Methods and Analysis

FO 4000 Directed Individual Study: Research Methods in Forest Soils

FO 4000 Directed Individual Study: Water Quality Monitoring and Assessment

FO 4463/6468 Forest Hydrology and Watershed Management

FO 4483/6483 Forest Soils

FO 4990/6990 Special Topic- Ecosystem Management in Cities and Towns

FO 7000 Directed Individual Study: Forest Hydrology Methods

FO 7000 Directed Individual Study: Research and Professional Development

FO 7000 Directed Individual Study: Southern Forested Wetlands

FO 8990 Special Topic- Nutrient Cycling in Forest Ecosystems

FO 8990 Special Topic- Water and Nutrient Cycles in Forests

NREC 4423 Environmental Assessments

Guest Instructor

ABE 8911 Agricultural and Biological Engineering Seminar

FO 4123/6423 Forest Ecology

FO 8111 Graduate Seminar

FO 8990 Special Topic- Emerging Issues in Forest Ecosystems

NREC 3213 Environmental Measurements

WFA 4383/6383 Wetlands Ecology and Management

2009-2013 **University of Delaware, Department of Geography**

GEOG 152 Climate and Life

GEOG 235 Conservation of Natural Resource

GRADUATE STUDENTS

1. Casey Beam (M.S. In Progress) Practical and effective methods of *Microstegium vimineum* removal for private landowners.
2. William Kruckeberg (M.S. – In Progress) Impacts of Prescribed Fire on Soil Erosion Potential in Northern Mississippi.
3. Thu Ya Kyaw (Ph.D. – In Progress) Multifunctional ecosystems: nitrogen mitigation by short rotation woody crops in the Lower Mississippi Alluvial Valley.
4. Kimberlyn Pace (M.S. – In Progress) Carbon and nitrogen dynamics of coarse woody debris decomposition: interactions among bark beetles, fungi, and termites.
5. Natasha Drotar (M.S. 2020) Effects of tree morphology on rainwater partitioning in an upland oak forest.
6. Mercedes L. Siegle-Gaither (M.S. 2017) Using deuterium and oxygen-18 stable isotopes to understand mechanisms of stemflow generation as a function of tree species and climate.
7. Katy E. Limpert (M.S. 2016) The ecological significance of phyllosphere leaf traits on throughfall hydrology, biogeochemistry, and leaf litter quality among oak (*Quercus* spp.) species in the Southeastern United States.
8. Jacob Landfield (not completed) Hydrologic and biogeochemical fluxes of stemflow from southern pine beetle outbreaks in a loblolly pine forest.

PROFESSIONAL APPOINTMENTS

Associate Editor, Forest Science	2019 – present
Associate Editor, Plant Ecology	2019 – present
Advisory Board, Enviva Biomass	2019 - present

PROFESSIONAL AFFILIATIONS

American Association of Geographers (AAG)	2009 – 2013
American Geophysical Union (AGU)	2010 – present
Ecological Society of America (ESA)	2015 – present
Phi Kappa Phi	2018 – present
Society of American Foresters (SAF)	2014 – present
Xi Sigma Pi	2018 – present

REVIEWING ACTIVITY

Climate, Forests, Frontiers in Forests and Global Change, Functional Ecology, Hydrological Processes, Journal of Environmental Informatics, Journal of Hydrology, Journal of Plant Nutrition and Soil Science, PLOS ONE, Physical Geography, Remote Sensing, Science of the Total Environment, Theoretical and Applied Climatology, Turkish Journal of Agriculture and Forestry, Water, Urban Forestry & Urban Greening, United States Geological Survey