CHRISTINA L. STAUDHAMMER
Associate Professor of Biostatistics
Department of Biological Sciences, University of Alabama
Box 870344, Tuscaloosa AL 35487
Phone: (205)348-1538, Fax: (205) 348-1786
Email: cstaudhammer@ua.edu
http://cstaudhammer.people.ua.edu/

EDUCATION

University of California, Davis	Applied Mathematics	BS (with honors) 1990
University of British Columbia	Forest Biometrics	MS 1999
University of British Columbia	Forest Biometrics	PhD 2004

PROFESSIONAL EXPERIENCE

2010-present	Associate Professor of Biometrics, Department of Biological Sciences, University of Alabama
2010-2011	Associate Professor of Forest Biometrics, School of Forest Resources and Conservation, University of Florida
2005-2010	Assistant Professor of Forest Biometrics, School of Forest Resources and Conservation, University of Florida
2002, 2004	Lecturer in Forest Biometrics, Department of Forest Resources, University of British Columbia (Canada)
1999-2001	Consulting Forest Biometrician, J.S. Thrower & Assoc., Vancouver, BC

RESEARCH INTERESTS

- Statistical Modeling
- Forest Biometrics
- Ecological Sampling Methods
- Brazil nut (*Bertholletia excelsa*) population dynamics
- Analysis of carbon dynamics via eddy covariance methods
- Urban and community forestry

EXTERNAL PROFESSIONAL ACTIVITIES

Peer Review

- Applied Research Associate Editor, *Forest Science* (2011 - present)
- Proposal reviewer, ETH Zurich Research Commission (2015-2016)
- Proposal reviewer, National Science Foundation Division of Environmental Biology (2013-2016)
- Journal article reviewer: *Canadian Journal of Forest Research, Forest Ecology and Management, Silva Fennica, Journal of Agroforestry, Journal of Theoretical Biology, Environmental and Ecological Statistics, Journal of Applied Ecology, Forests, Forest Biometry, Management and Information Science, Landscape and Urban Planning, Urban Forestry and Urban Greening*
- Technical reviewer, USDA Forest Service Research Work Unit SRS-4952: Human and Natural Systems Research (2014), Northern Research Station (2015)

- Proposal reviewer, New University Researchers Start-up Program of *Fonds de recherche du Québec - Nature et technologies* (2013)
- Book proposal reviewer: Taylor and Francis, CRC Press (2009)

Advisory committees and leadership

- Member, USDA Forest Service Urban to Rural Analysis Team (2016-present)
- Member, National Ecological Observatory Network (NEON) Technical Working Groups (TWGs) for the Fundamental Instrument Unit (2011-present).
- Member, National Science Foundation Macrosystems Biology All-PI Meeting Organizing Committee (2014).
- Member, International Union of Forest Research Organizations 4.01.01 Working Group: Design, performance and evaluation of experiments, which organizes professional meetings and produces directives on research in this research area (2004-present).
- Chairman and co-chairman, respectively, of the 2008 and 2007 Southern Mensurationists Meetings
- Chairman of the Forest Products Society Quality Control, Process Control, and Production Management Group (2004-2005)
- Member, Forest Management Training Project Review Team, responsible for critical review of the "Encyclopedia of Southern Bioenergy" (2005)

Other Academic Service

- Workshop participant, "Growing the Urban Forest". The National Socio-Environmental Synthesis Center, February 8-10, 2016, Annapolis, MD.
- Courtesy Faculty, University of Florida School of Natural Resources and the Environment (2011-2014)
- External member, PhD examination committee, Programa de Pós Graduação em Engenharia de Florestal, Universidade Federal de Santa Maria, Rio Grande do Sul, Brazil (2013)

Consultations outside the University

- Instructor for short course on Experimental Design and Analysis for Programa de Mestrado em Ecologia e Manejo de Recursos Naturais, Universidade Federal do Acre, Rio Branco, Brazil. July 28-August 1, 2016.
- Instructor for scientific publication workshop for Programa de Mestrado em Ecologia e Manejo de Recursos Naturais, Universidade Federal do Acre, Rio Branco, Brazil. July 23-24, 2015.
- Instructor for ICOS-NEON Carbon Workshop 2015, Observatoire de Haute-Provence, France. June 2-12, 2015.
- Statistical advisor on forestry experimental designs and analyses for graduate students in Programa de Pós Graduação em Engenharia de Florestal, Universidade Federal de Santa Maria, Rio Grande do Sul, Brazil (2013)
- Statistical advisor on agronomy and forestry experiments for Department of Natural Resources, Kingdom of Bhutan (2007-present)
- Statistical advisor on grade threshold optimization algorithms for Calibre Equipment, Ltd., Tasmania (2012)
- Short course instructor in experimental designs and analysis for Department of Natural Resources, Kingdom of Bhutan (2007, 2011)

MAJOR INTERNAL PROFESSIONAL ACTIVITIES

University of Alabama

- Member, Search Committee for Ecohydrologist (2016-17)
- Member, Search Committee for Cell/Molecular Immunology (2015-16)
- Member, Search Committee for University of Alabama Arboretum Caretaker (2015)
- Member, Search Committee for Assistant Professor of Computational Biology (2014)
- Chair, Search Committee for University of Alabama Arboretum Director (2013)
- Member, University Institutional Biological Safety committee (2012-present)
- Member, Department of Biological Sciences J. Nicholene Bishop Biological Station Advisory Board (2010-present)
- Academic Advisor, Department of Biological Sciences, assisting ~50 undergraduates per term to select appropriate coursework
- Statistical Advisor, College of Arts and Sciences, meeting with graduate students not under my supervision to advise them on statistical issues associated with their projects (not part of official committee duties or part of teaching responsibilities; >50 students, 2010-present)

University of Florida

- Member, College of Agricultural and Life Sciences Curriculum Enhancement committee, (2008-2010)
- Member, Undergraduate Programs Committee, School of Forest Resources and Conservation (SFRC) (2005-2010)
- Member, Search Committee for Assistant Professor of Statistics, IFAS Statistics (2008)
- Member, Committee for Peer Review of Teaching, SFRC (2006 and 2008)
- Member, Undergraduate Scholarship Committee, SFRC (2005-2007)
- Member, Search Committee for Asst. Professor of Forest Hydrology, SFRC-UF (2005)
- Member, Search Committee for Assistant Professor of Forest Geomatics, SFRC (2006)
- Statistical Advisor, Institute of Food and Agricultural Sciences, meeting with graduate students not under my supervision to advise them on statistical issues associated with their projects (not part of official committee duties or part of teaching responsibilities; 100+ students, 2005-2010)

PROFESSIONAL SOCIETIES

- Ecological Society of America (2009-present)
- American Statistical Association (2004- present)
- Society of American Foresters (2005-present)

CURRENT FIELD RESEARCH ACTIVITIES

- With Dr. Lucia Wadt (Embrapa Acre, Brazil), Dr. Karen Kainer (U. Florida), and Dr. Thiago da Cunha, I have designed and implemented experimental designs to develop models characterizing the trade-offs among seasonal growth patterns, fruiting patterns, and forest structure in Brazil nut (*Bertholletia excelsa*) trees. This work is a result of my past and current relationship as a visiting researcher at Embrapa Acre, Brazil (See Awards section: CAPES award).

- With Drs. Francisco Escobedo and Linda Young (U. Florida), I have designed and implemented sampling designs to support the estimation of models describing urban

forest dynamics and the trajectory of invasive woody plants. This work was funded by USDA-TSTAR project.

- At the Joseph Jones Ecological Research Center (Newton GA), I created and implemented sampling plans to characterize the drivers of longleaf pine regeneration (with Dr. R. Mitchell), supported by a UA RGC grant and additional grant funding from the Center. I also served as a statistical consultant on projects describing the impact of logging (with Dr. S. Jack) and species diversity-fire interactions (with Dr. K. Kirkman).
- With Dr. Gregory Starr (University of Alabama), I have developed models to identify the drivers of carbon flux components observed via eddy covariance methods. This work brought about the submission of several pending grants.
- With Dr. András Darabant (CORET, BOKU University, Vienna Austria) and P.B. Rai, K. Budur (Dept. Natural Resources, Kingdom of Bhutan), I have modeled the effects of prescribed fire on timber and non-timber forest products in Bhutan. This work is a result of my previous funded consulting with the Kingdom of Bhutan (2007, 2011).

PUBLICATIONS TO DATE

(* represents graduate student or post-doctoral authors under my supervision)

Books (4)

Kozak, A., R.A. Kozak, **C.L. Staudhammer**, S. Watts. *Introductory Probability and Statistics: Applications for Forestry and Natural Sciences, 2nd edition.* CABI, Wallingford, UK. Accepted.

Brandeis, T.J., F.J. Escobedo, **C.L. Staudhammer**, D.J. Nowak, W.C. Zipperer. 2014. San Juan Bay Estuary Watershed Urban Forest Inventory. Gen.Tech. Rep. SRS-190. Asheville, NC: USDA, Forest Service, Southern Research Station. 52 Pp.

Staudhammer, C.L., L.A. Hermansen-Baez, D.R. Carter, E.A. Macie (editors). 2011. Wood to energy: using southern interface fuels for bioenergy. Gen.Tech. Rep. SRS-132. Asheville, NC: USDA, Forest Service, Southern Research Station. 90 Pp.

Kozak, A., R.A. Kozak, **C.L. Staudhammer**, S. Watts. 2008. *Introductory Probability and Statistics: Applications for Forestry and Natural Sciences.* CABI, Wallingford, UK.

Refereed Journal Articles (61)

Malone, S.L., J. Barr, J. Fuentes, S.F. Oberbauer, **C.L. Staudhammer**, E.E. Gaiser, G. Starr. Sensitivity to low temperature episodes: implications for CO2 dynamics in coastal wetland ecosystems. Accepted at *Wetlands.*

Darabant, A., T. Dorji, **C.L. Staudhammer**, K. Budur, P.B. Rai, G. Gratzer. No fire - no NTFP harvest: interactive effects and potential consequences of burning Pine woodlands for Lemon Grass oil production. Accepted at *Journal of Applied Ecology.*

*Kunwor, S., G. Starr, H.W. Loescher, **C.L. Staudhammer**. 2017. Preserving the variance of long-term eddy-covariance measurements using parameter prediction in gap filling. *Agricultural and Forest Meteorology* 232: 635–649..

*Blood, A., G. Starr, F. Escobedo, A. Chappelka, E. Wiseman, R. Sivakumar, **C.L. Staudhammer**. 2016. Resolving uncertainties in predicted crown relationships for urban trees of the Southeastern United States: local and general equations for widespread species. Accepted at *Urban Forestry and Urban Greening* 20: 282 - 294.

Darabant, A, P.B. Rai, **C.L. Staudhammer**, T. Dorji. 2016. Designing and evaluating bamboo harvesting methods for local needs: integrating Local Ecological Knowledge and science. *Environmental Management* 58(2):312-22. doi: 10.1007/s00267-016-0702-6.

Kirkman, L.K., L.M. Giencke, R.S. Taylor, L.R. Boring, **C.L Staudhammer**, R.J. Mitchell. 2016. Productivity and species richness in a longleaf pine woodlands: resource and disturbance influence across edaphic gradient. *Ecology*. 97: 2259–2271. doi:10.1002/ecy.1456.

*Blood, A., G. Starr, F. Escobedo, A. Chappelka, **C.L. Staudhammer**. 2016. How do urban forests compare? A study of within urban versus peri-urban tree diversity in forests of the Southeastern US. *Forests* 7(6), 120; doi:10.3390/f7060120.

Starr, G., **C.L. Staudhammer**, S. Wiesner, S. Kunwor*, H.W. Loescher, A. Baron-Lopes, A. Whelan, R. Mitchell, L. Boring.2016. Carbon dynamics of *Pinus palustris* ecosystems following drought. *Forests* 7(98); doi:10.3390/f7050098.

Escobedo, F.J., N. Clerici, **C.L. Staudhammer**, G.T. Corzo. 2015. Socio-ecological dynamics and inequality in Bogotá, Colombia's public urban forests and their ecosystem services. *Urban Forestry & Urban Greening* 14: 1040-1053. DOI:10.1016/j.ufug.2015.09.011.

Mortazavi, B. A.C. Ortmann, L. Wang, R. Bernard, **C.L. Staudhammer**, J.D. Dalrymple, R.H. Carmichael, A. Kleinhuizen. 2015. Evaluating the impact of oyster (*Crassostrea virginica*) gardening on sediment nitrogen cycling in a subtropical estuary: Mobile Bay, AL. *Bulletin of Marine Science* 91(3). DOI: http://dx.doi.org/10.5343/bms.2014.1060. f

Whelan, A., G. Starr, **C.L. Staudhammer**, H. Loescher, R. Mitchell. 2015. Effects of drought and prescribed fire on energy exchange in longleaf pine ecosystems. *Ecosphere* 6(7): 128. DOI: http://dx.doi.org/10.1890/ES15-00111.1.

Staudhammer, C.L., F.J. Escobedo, N. Holt, L.J. Young, T.J. Brandeis, W. Zipperer. 2015. Predictors, spatial distribution, and occurrence of woody invasive plants in subtropical urban ecosystems. *Journal of Ecological Management* 155: 97-105.

*Malone, S.L., C. Keough, **C.L. Staudhammer**, M.G. Ryan, W.J. Parton, G. Starr. 2015. Ecosystem persistence in the face of climate change: A case study from the freshwater marshes of the Florida Everglades. *Ecosphere* 6(4): Article 57.

*Becknell, J.M., A. Desai, M. Dietze, G. Starr, J. Franklin, J. Hall, A. Pourmokhtarian, P. Stoy, P. Duffy, M. Binford, **C.L. Staudhammer**. 2015. Assessing Interactions Among Changing Climate, Management, and Disturbance in Forests: A macrosystems approach. *Bioscience* 65 (3): 263–274.

Starr, G., **C.L. Staudhammer**, H.W. Loescher, R. Mitchell, A. Whelan, J. McGee, J.K. Hiers, J.J. O'Brien. 2014. Time series analysis of Forest Carbon Dynamics: Recovery of *Pinus palustris* following a Prescribed Fire. *New Forest.* DOI 10.1007/s11056-014-9447-3.

*Malone, S.L., **C.L. Staudhammer**, S.F. Oberbauer, P. Olivas, M.G. Ryan, J. Schedlbauer, H.W. Loescher, G. Starr. 2014. El Niño Southern Oscillation (ENSO) enhances CO_2 exchange rates in freshwater marsh ecosystems in the Florida Everglades. *PlosOne*. DOI: 10.1371/journal.pone.0115058.

*Malone, S.L., **C.L. Staudhammer,** H.W. Loescher, P. Olivas, S.F. Oberbauer, M.G. Ryan, J. Schedlbauer, G. Starr. 2014. Seasonal patterns in energy partitioning of two freshwater marsh ecosystems in the Florida Everglades. *JGR Biogeosciences.* DOI: 10.1002/2014JG002700.

*Timilsina, N., F.J. Escobedo, **C.L. Staudhammer**, T.J. Brandeis. 2014. Analyzing causal factors of carbon stores in a subtropical urban forest. *Ecological Complexity* 20:23-32. DOI: 10.1016/j.ecocom.2014.07.001.

*Timilsina, N., **C.L. Staudhammer**, F.J. Escobedo, A.B. Lawrence*. 2014. Tree biomass, wood waste yield, and carbon storage changes in an urban forest. *Landscape and Urban Planning* 127:18-27. DOI: 10.1016/j.landurbplan.2014.04.003.

Kainer, K.A., L.H.O. Wadt, **C.L. Staudhammer**. 2014. Testing a silvicultural recommendation: Brazil nut responses 10 years after liana cutting. *Journal of Applied Ecology* 51(3): 655-663. DOI: 10.1111/1365-2664.12231.

Rockwell, C., K. Kainer, C. Baraloto, **C.L. Staudhammer**. 2014. Logging in bamboo-dominated forests in southwestern Amazonia: Caveats and opportunities for smallholder forest management. *Forest Ecology and Management* 315: 202–210.

Camp, E.V., **C.L. Staudhammer**, W.E. Pine III, J.C. Tetzlaff, T.K. Frazer. 2014. Replacement of rooted macrophytes by filamentous macroalgae: effects on small fishes and macroinvertebrates. *Hydrobiologia* 722:159–170.

Zeidemann, V., K.A. Kainer, **C.L. Staudhammer**. 2013. Heterogeneity in NTFP quality, access and management shape benefit distribution in an Amazonian extractive reserve. *Environmental Conservation* 41(3): 424-252. doi:10.1017/S0376892913000489.

Tucker-Lima, J.M., **C.L. Staudhammer**, T. Brandeis, W. Zipperer, F. Escobedo. 2013. Growth and change in a subtropical urban forest in San Juan, Puerto Rico, 2001-2010. *Landscape and Urban Planning* DOI: 10.1016/j.landurbplan.2013.08.007.

*Malone, S.L., G. Starr, **C.L. Staudhammer**, M.G. Ryan. 2013. Effects of simulated drought on the greenhouse carbon balance of Everglades short-hydroperiod marsh ecosystems. *Global Change Biology* DOI: 10.1111/gcb.12211.

Soriano, M., K.A. Kainer, **C.L. Staudhammer**, E. Soriano. 2013. Implementación del manejo múltiple en bosques comunitarios ricos en castaña: Efectos del aprovechamiento de madera en la regeneración natural. *In* Guariguata, M.R. (Ed.), *Avances y perspectivas del manejo forestal para uso múltiple en el trópico húmedo:* 205-232. The Center for International Forestry Research, Bogor, Indonesia.

*Timilsina, N. and **C.L. Staudhammer**. 2013. Individual tree-based diameter growth model of slash pine in Florida using non-linear mixed modeling. *Forest Science* 59(1): 27-37.

Staudhammer, C.L., L.H.O. Wadt, K.A. Kainer. 2013. Tradeoffs in diameter growth and reproduction shift over the lifetime of a long-lived tropical species. *Oecologia* 173(1): 45-57. DOI 10.1007/s00442-013-2603-1.

Whelan, A., R. Mitchell, **C.L. Staudhammer**, G. Starr. 2013. The cyclic occurrence of fire and its role in carbon dynamics along an edaphic moisture gradient in longleaf pine ecosystems. PLoS ONE 8(1): e54045. doi:10.1371/journal.pone.0054045.

Genet, H., S.F. Oberbauer, S.J. Colby, **C.L. Staudhammer**, G. Starr. 2013. Growth responses of Sphagnum hollows to a season lengthening manipulation in Alaskan arctic tundra. *Polar Biology* DOI 10.1007/s00300-012-1236-x.

*Timilsina, N. and **C.L. Staudhammer**. 2012. Individual tree mortality model for slash pine in Florida: a mixed modeling approach. *Southern J. Applied Forestry* 36(4): 211-219.

Jimenez, K.L., G. Starr, J. L. Schedlbauer, **C.L. Staudhammer**, H. W. Loescher, S.F. Oberbauer. 2012. Carbon dioxide exchange rates from short- and long-hydroperiod everglades freshwater marsh. *J. Geophysical Research* 117, G04009, doi:10.1029/ 2012JG002117.

Tamang, B., M.G. Andreu, **C.L. Staudhammer**, D.L. Rockwood, S. Jose. 2012. Equations for estimating aboveground biomass of cadaghi (*Corymbia torelliana*) trees in farm windbreaks. *Agroforestry Systems* DOI 10.1007/s10457-012-9490-z.

Klimas, C., K.A. Kainer, L.H. Wadt, **C.L. Staudhammer**, V. Rigamonte-Azevedo, Freire Correia, M.; L.M. da Silva Lima. 2012. Control of *Carapa guianensis* phenology and seed production: a 5-year study exploring the influences of tree attributes, habitat heterogeneity, and climate cues. *Journal of Tropical Ecology* 28:105-118.

*Lawrence, A.B., F.J. Escobedo, **C.L. Staudhammer**, W. Zipperer. 2012. Analyzing growth and mortality in a subtropical urban forest ecosystem. *Landscape and Urban Planning* 104:85-94.

Tamang, B., M.G. Andreu, **C.L. Staudhammer**, D.L. Rockwood, S. Jose. 2011. Towards an empirical relationship between root length density and root number in windbreak-grown cadaghi (*Corymbia torelliana*) trees. *Plant Root* 5:40-45.

Soriano, M., K.A. Kainer, **C.L. Staudhammer**, E. Soriano. 2011. Implementing multiple forest management in Brazil nut-rich community forests: effects of logging on natural regeneration and forest disturbance. *Forest Ecology and Management* 268: 92-102.

*Malone, S.L, L.N. Kobziar, **C.L. Staudhammer**, A. Abd-elrahman. 2011. Modeling relationships among 217 fires using remote sensing of burn severity in southern pine forests. *Remote Sensing* 3: 2005-2028; doi:10.3390/rs3092005.

*Thompson, B.K., F.J. Escobedo, **C.L. Staudhammer**, C.J. Matyas, Y. Qiu. 2011. Modeling hurricane-caused urban forest debris in Houston, Texas. *Landscape and Urban Planning* 101: 286–297.

Staudhammer, C.L., F.J. Escobedo, A.B. Lawrence*, M. Duryea, P. Smith, M. Merritt. 2011. Rapid assessment of change and hurricane impacts to Houston's urban forest structure. *Arboriculture & Urban Forestry* 37(2):60-66.

Lee, H., E.A.G. Schuur, J.G. Vogel, M. Lavoie, D. Bhadra, **C.L. Staudhammer**. 2011. A Spatially explicit analysis to model carbon fluxes at a larger scale in upland tundra where permafrost is thawing. *Global Change Biology* 17(3): 1379-1393.

Zhao, M., F.J. Escobedo, **C.L. Staudhammer**. 2010. Spatial patterns of a subtropical, coastal urban forest: Implications for land tenure, hurricanes, and invasives. *Urban Forestry & Urban Greening* 9(3): 205-214.

Johnson, S.A., M.E. McGarrity, **C.L. Staudhammer**. 2010. An effective chemical deterrent for invasive Cuban Treefrogs. *Human-Wildlife Interactions* 4(1):112-117.

Staudhammer, C.L., F. Escobedo, C. Luley, J. Bond. 2009. Patterns of urban forest debris from the 2004 and 2005 hurricane seasons in Florida. *Southern Journal of Applied Forestry* 33(4): 193-196.

*Valle, D.R., **C.L. Staudhammer**, W. Cropper, P. Van Gardingen. 2009. The importance of multimodel projections to assess uncertainty in projections from simulation models. *Ecological Applications* 19(7): 1680-1692.

Escobedo, F., C. Luley, J. Bond, **C.L. Staudhammer**, C. Bartel. 2009. Hurricane debris and damage assessment for Florida urban forests. *Arboricult. & Urban For.* 35(2): 100-106.

Staudhammer, C.L., E.J. Jokela, T.A. Martin. 2009. Competition dynamics in pure- versus mixed-family stands of loblolly and slash pine in the southeastern United States. *Canadian Journal of Forest Research* 39(2): 396-409.

Cotta, J., K. Kainer, L.H.O.Wadt, **C.L. Staudhammer**. 2008. Shifting cultivation effects on Brazil nut (*Bertholletia excelsa*) regeneration. *Forest Ecology and Mgmt.* 256: 28-35.

Vasconcelos, S.S., D.J. Zarin, M.M. Araújo, L.G.T. Rangel-Vasconcelos, C.J.R. Carvalho, **C.L. Staudhammer**, F. de Assis Oliveira. 2008. Seasonal and experimental effects on litterfall quantity and quality in eastern Amazonian forest regrowth, Brazil. *Journal of Tropical Ecology* 24:27-38.

Wadt, L.H.O., K.A. Kainer, **C.L. Staudhammer**, R.O. Peréa Serrano. 2008. Sustainable forest use in Brazilian extractive reserves: natural regeneration of Brazil nut in exploited populations. *Biological Conservation* 141: 332-346.

*Valle, D.R., **C.L. Staudhammer**, W. Cropper. 2007. Simulating multiple use forest management: How to integrate the simulation of Non-Timber Forest Product (NTFP) extraction to the simulation of timber extraction in tropical mixed forests? *Journal of Forestry* 105(6): 301-306.

Kainer, K.A., L.H.O. Wadt, **C.L. Staudhammer**. 2007. Explaining variation in Brazil nut fruit production. *Forest Ecology and Management* 250(3):244-255.

Rockwell, C.A., K.A. Kainer, **C.L. Staudhammer**, C. Baraloto. 2007. Future crop tree damage in a certified community forest in southwestern Amazonia. *Forest Ecology and Management* 242 (2):108-118.

Staudhammer, C.L., T.C. Maness, R.A. Kozak. 2007. Profile charts for monitoring lumber manufacturing using laser range sensor data. *J. of Quality Technology* 39(3): 224-240.

Staudhammer, C.L., R.A. Kozak, T.C. Maness. 2006. SPC methods for detecting simple

sawing defects using real-time laser range sensor data. *Wood and Fiber Science* 38(4): 396-416.

Staudhammer, C.L., V.M. LeMay, R.A. Kozak, T.C. Maness. 2005. Mixed-model development for real-time statistical process control data in wood products manufacturing. *Forestry, Biometry, Management and Information Sciences* 1: 19-35.

Maness, T.C., R.A. Kozak, **C.L. Staudhammer**. 2004. Reliability testing of statistical process control procedures for manufacturing with multiple sources of variation. *Wood and Fiber Science* 36(3):443-458.

Maness, T.C., R.A. Kozak, **C.L. Staudhammer**. 2003. Applying real-time statistical process control to manufacturing processes exhibiting between and within part size variability. *Quality Engineering* 16(1): 113-125.

Maness, T.C., **C.L. Staudhammer**, R.A. Kozak. 2002. Statistical considerations for real-time size control systems in wood products manufacturing. *Wood and Fiber Science* 34(3):476-484.

Staudhammer, C.L. and V.M. LeMay. 2001. Introduction and evaluation of possible indices of stand structural diversity. *Canadian Journal of Forest Resources* 31(7): 1105-1115.

Staudhammer, C.L. and V.M. LeMay. 2000. Height prediction equations using diameter and stand density measures for species in coastal B.C. *Forestry Chronicle* 76(2): 303-309.

Refereed Extension Publications (4)

Wadt, L. H. O., K. A. Kainer, **C.L. Staudhammer**. 2015. Corte de cipós em castanheiras como tratamento silvicultural para aumentar a produção de frutos. *Comunicado Técnico 400.* ISSN 0103-9458, Novembro 2015, EMBRAPA, Porto Velho, RO.

Escobedo, F.J., A. Chappelka, **C.L. Staudhammer**, H. Mayer. 2013. Evaluating the use of i-Tree ECO in the Southeastern US. *Florida Arborist* 16(3) Fall 2013. http://www.floridaisa.org/pdf/2013Fall.pdf.

*Thompson, B.T., F.J. Escobedo, **C.L. Staudhammer**, F. Bond, C. Luley. 2010. Urban forests in Florida: storm damage assessment protocol to estimate hurricane-caused tree debris. EDIS Publication #FOR-268. http://edis.ifas.ufl.edu/fr330.

Escobedo, F.J., S. Vareal, **C.L. Staudhammer**. 2010. Southern Escambia County Florida's urban forests. EDIS Publication #FOR231. http://edis.ifas.ufl.edu/fr293.

Non-Refereed Proceedings (last five years; 4)

K.A. Kainer, Wadt, L.H.O., **C.L. Staudhammer**. 2014. Brazil nut responses 10 years after liana cutting. Proceedings of the IUFRO 2014 World Congress, October 5-11, 2014. Salt Lake City, Utah.

Darabant, A., D. Dorji; W. Prommegger, **C. Staudhammer**, K. Budur, P.B. Rai, G. Gratzer. 2014. Fire as a land management tool in remote Eastern Himalayan valleys – socio-economic objectives and ecological constraints. Proceedings of the European Geosciences Union General Assembly. April 27-May 2, 2014. Vienna, Austria.

Darabant, A., B.P. Rai, **C.L. Staudhammer**, T. Dorji. 2012. Harvesting method optimizing shoot and culm production in *Dendrocalamus hamiltonii*. Proceedings of the 9th World Bamboo Congress. April 9-12, 2012. Antwerp, Belgium.

Wadt, L.H.O., K.A. Kainer, **C.L. Staudhammer**, C. Klimas, R. da Silva Oliveira, K. Martins, L.M. da Silva Lima, V. Rigamonte Azevedo de Assis, V. Santos Silva, M. Freire Correa. 2012. Manejo de uso múltiplo e a conservação de recursos genéticos florestais. Procedings of II Congresso Brasileiro de Recursos Genéticos. (The 2nd Brazilian Congress of Genetic Resources). September 24-28, 2012. Belém, Para, Brazil.

Publications in progress (8)

Wangdi, N., K. Om, C. Thinley, D. Drukpa, T. Dorji, A. Darabant, P.B. Chhetri, I.U. Ahmed, C.L. Staudhammer, R. Jandl, A. Schindlbacher, P. Hietz, K. Katzensteiner, D. Godbold, G. Gratzer. Knowing the consequences of climate change in remote mountain regions: a throughfall-exclusion experiment to simulate monsoon failure in the Himalayas. In review at *Mountain Research.*

Bertwell, T.D., K.A. Kainer, W.P. Cropper, **C.L. Staudhammer**, L.H.O. Wadt. Assessing Sustainability: Perspectives Informed by Demographic Models Integrating 14 Years of *Bertholletia excelsa* Research. In review at *Biotropica.*

*Londres, M., M. Schulze, **C.L. Staudhammer**, K. Kainer. Population structure and fruit production of Andiroba (*Carapa guianensis*, Meliaceae) in Amazonian várzea floodplain forests: implications for community-based management. In review at *Tropical Conservation Science.*

Starr, G., J.R. Jarnigan, **C.L. Staudhammer**, J.A. Cherry. Variation in ecosystem carbon dynamics of saltwater marshes in the northern Gulf of Mexico. In review at *Marine Ecology Progress Series*.

Wiesner, S., H. W. Loescher, **C. L. Staudhammer**, A. Baron, C. L., L. Boring, R. J. Mitchell, G. Starr. The flat-tax hypothesis of ecosystem respiration: a case study of soil CO2 efflux from fire dependent longleaf pine savannas. In review at *New Phytologist*.

Hiers, J.K., **C.L. Stauhammer**, J. Hom, J.J. O'brien, H.L. Gholz, T.A. Martin and G. Starr. Fuel Moisture Dynamics for a flatwood pine ecosystem with a Palmetto (Serenoa repens) dominated understory. To be submitted to *International Journal of Wildland Fire.*

Wadt, L.H.O., C. Faustino, K.A. Kainer, **C.L. Staudhammer**. Primary and secondary dispersal of large-seeded fruits by scatter-hoarding rodents: the case of *Bertholletia excelsa.* To be submitted to *Forest Ecology and Management*.

Staudhammer, C.L., T.A. da Cunha, K.A. Kainer, and L.H.O. Wadt. Variability in *Bertholletia excelsa* production in the western Amazon and implications for long-term stability. To be submitted to *Ecological Applications*.

RESEARCH GRANTS AND CONTRACTS

Current External Funding

Starr, G., **C.L. Staudhammer**, S.L. Malone, S.F. Oberbauer. 2016-2018 ($834,043, UA portion $433,116). Collaborative Research: Understanding the effects of increased freshwater

inputs and salt water intrusion on the current and future greenhouse carbon balance of Everglade wetlands. NSF Division of Atmospheric and Geospace Sciences.

Staudhammer, C.L., G. Starr, P. Duffy, M. Binford, R. Mitchell, L. Boring, A. Desai, M. Dietze, P. Stoy, J. Franklin. 2013-2017 ($1,668,827, UA portion $939,143). Collaborative Research: Building forest management into Earth system modeling: Scaling from stand to continent. National Science Foundation - Emerging Frontiers, Macrosystems Biology.

Staudhammer, C.L. 2015-2016 ($29,228). Collaborative Research: Building forest management into Earth system modeling: Scaling from stand to continent. Supplement to: National Science Foundation - Emerging Frontiers, Macrosystems Biology.

Staudhammer, C.L. 2016-2018 ($26,000). Modification to: Regional Urban Forest i-Tree Eco Inventory Study. USDA Forest Service: Urban & Community Forestry.

Previous External Funding

Staudhammer, C.L. 2014-2016 ($68,656). Regional Urban Forest i-Tree Eco Inventory Study. USDA Forest Service: Urban & Community Forestry.

Staudhammer, C.L. 2013-2014 ($23,937). Regional Urban Forest i-Tree Eco Inventory Study. USDA Forest Service: Urban & Community Forestry.

Staudhammer, C.L. 2012-2013 ($1,584). Statistical analysis of skidder traffic. Joseph W. Jones Ecological Research Center.

Staudhammer, C.L., F.J. Escobedo, L.J. Young, W. Zipperer. 2009-2011 (U. Florida $117,520). Spatial distribution of invasive horticultural woody plants in urban landscapes. USDA CSREES TSTAR Program.

Staudhammer, C.L., L.N. Kobziar, K. Bohn, H. Ober, T. Stein, D. Carter. 2009-2011 (U. Florida $236,000). Developing Adaptive Management Strategies for Ecosystems in Transition. USDA CSREES National Needs Graduate Fellowship Grants Program.

Bannister, M., Y. Jung, H. Beck, W. Cropper, **C.L. Staudhammer**. 2009-2011 (U. Florida $138,099). Virtual Learning Forests: Enhancing Undergraduate Education for Natural Resource Students with Virtual World Environments. USDA CSREES Higher Education Challenge Grants Program.

Pine, W.E. III, T.K. Frazer, **C.L. Staudhammer**. 2008-2009 (U. Florida $268,146). Fish-habitat relationships in Florida springs: Do submersed plants and filamentous algae influence the population structure and production of small-bodied fishes? Florida FWC - State Wildlife Grants.

Escobedo, F.J., S. Smith, M. Duryea, **C.L. Staudhammer**, B. Dewitt. 2007-2009 (U. Florida $99,960). Urban Forestry Rapid Damage Assessment (Phase 1). Florida Department of Agriculture and Consumer Services - Division of Forestry.

Escobedo, F.J., S. Smith, M. Duryea, **C.L. Staudhammer**, B. Dewitt. 2007-2009 (U. Florida $99,956). Rapid Assessment of the Urban Forest Following a Hurricane (Phase 2). USDA Forest Service.

Monroe, M., A. Hermansen-Baez, E. Macie, D.R. Carter, **C.L. Staudhammer**. 2005-2009 (U. Florida $663,031). Wood to Energy: a Training Program to Utilize Interface Fuels for Bioenergy. USDA Forest Service.

Previous Internal Funding

Broadbent, E.N., **Staudhammer, C.L.**, A.Z. Almeyda. 2014-2016 ($4350). Establishment of a long-term ecosystem plot and remote sensing based monitoring network to understand and mitigate the impacts of invasive species and climate change at the University of Alabama's Tanglewood Biological Station natural area. College Academy of Research, Scholarship, and Creative Activity.

Staudhammer, C.L. 2011-2013 ($4,985). Tree regeneration: A new approach to study design and analysis. University of Alabama RGC Program.

Staudhammer, C.L. 2006-2007 (U. Florida $1,000). University of Florida IFAS International Programs Travel Award.

Pending External Funding

Staudhammer, C.L., P. Duffy, M. Binford, A. Desai, M. Dietze, R. Kelly, W. Kleindl, P. Stoy, C. Schultze. 2017-2022 ($1,897,724, UA portion $971,893). Collaborative Research: The future of US forest function under changing climate, disturbance, and forest management. National Science Foundation - Emerging Frontiers, Macrosystems Biology.

INVITED TALKS

Oberbauer, S.F., S. Malone, **C.L. Staudhammer**, S. Kunwor, E. Gaiser, G. Starr. 2016. Understanding the pace and patterns of ecosystem carbon, water and energy exchange for freshwater marshes of the Everglades. USDA Florida C-Cycling Meeting, September 29. Ft Lauderdale, FL.

Starr, G., **C.L. Staudhammer**, H. Loescher, S. Wiesner, *S. Kunwor, A. Whelan, A. Baron, M. William, L. Boring, R. Mitchell. 2016. Understanding the patterns and processes in Longleaf Pine Ecosystems carbon dynamics across an edaphic gradient. Joseph W. Jones Ecological Research Center, June 9. Newton, GA.

Staudhammer, C.L. 2015. Building forest management into Earth system modeling: Preliminary results and future directions. National Science Foundation - Macrosystems Biology Annual PI Meeting. August 6-7, Arlington, VA.

Staudhammer, C.L. 2015. Separating the wheat from the chaff in frequently recorded, long-term data: a case study of longleaf pine forest carbon dynamics and resiliency. The University of Mississippi Department of Biology Seminar. April 10, Oxford, MS.

Starr, G., S. Malone*, **C.L. Staudhammer**, H. Loescher. 2015. The development of techniques for continuous measurements of methane fluxes using eddy covariance techniques. National Ecological Observation Network (NEON), February 10, Boulder, CO.

Starr , G., **C.L. Staudhammer**, S. Wiesner, H.W. Loescher, A. Baron, A. Whelan, R.J. Mitchell. 2014. The cyclic role of fire in the movement of carbon through longleaf pine ecosystems. 99th ESA Annual Meeting. August 10-15, Sacramento, CA.

Hall, J., J. Becknell*, **C.L. Staudhammer**. 2014. Building forest management into Earth system modeling: Scaling from stand to continent. National Science Foundation - Macrosystems Biology Annual PI Meeting. June 4-5, Arlington, VA.

Staudhammer, C.L. 2013. Scaling Managed Forests from Stand to Continent: A macrosystems biology approach and its linkage to the NEON observatory platform. National Ecological Observation Network (NEON) Board of Directors' Meeting, October 1-2, Gainesville, FL.

Kainer, K.A., L.H.O. Wadt, **C.L. Staudhammer**. 2013. Brazil nut growth, production, and regeneration 2002-2012. Community meeting of Reserva Extrativista Chico Mendes. Colocação Filipinas, May 17, Seringal Filipinas, Acre, Brazil.

Staudhammer, C.L. 2013. Mixed models of forest dynamics: an overview and application to data repeated over time and space. Centro de Pesquisa Agroflorestal do Acre (Embrapa Acre), May 21, Rio Branco, Acre, Brazil.

*Malone, S., G. Starr, **C.L. Staudhammer**, M.G. Ryan. 2013. Ecosystem Responses to Simulated Drought in Everglades Short Hydroperiod Freshwater Marshes. Florida Coastal Everglades LTER All Scientists Meeting, March 11-12, Miami, FL.

Staudhammer, C.L. 2013. Design and analysis for ecological data with an application to data repeated over time and space. Programa de Pós Graduação em Engenharia de Florestal, February 26, Universidade Federal de Santa Maria, Rio Grande do Sul, Brazil.

Staudhammer, C.L. 2012. Separating the signal from the noise in frequently recorded, long-term data: a case study characterizing the drivers of carbon flux in longleaf pine ecosystems. University of Alabama Biological Sciences Departmental Seminar Series, October 18, Tuscaloosa, AL.

Staudhammer, C.L. 2012. Estimating and accounting for data-related uncertainty. Ecological Society of America Workshop - Estimating Uncertainty and Detecting Trends in Ecological Data: Challenges for Developing the National Ecological Observatory Network, August 4, Portland, OR.

Staudhammer, C.L. 2009. Modeling data repeated over time and space: investigations of autocorrelation structures, response variables, and trigonometric random regression. Joseph W. Jones Ecological Research Center, November 12, Newton, GA.

Staudhammer, C.L., F.J. Escobedo, C. Luley, J. Bond. 2009. Urban forest debris and damage assessment: the Florida 2004-2005 hurricane seasons. Society of American Foresters' National Convention, Sep. 30-Oct. 4, Orlando FL.

Staudhammer, C.L. 2008. Statistical Design for Research in Ecology and Natural Resources. Programa de Mestrado em Ecologia e Manejo de Recursos Naturais, Universidade Federal do Acre, June 24, Rio Branco, Brazil.

Kainer, K.A., L.H.O. Wadt, **C.L. Staudhammer**. 2007. Brazil nut growth, production, and regeneration 2002-2007. Community meeting of Reserva Extrativista Chico Mendes. Colocação Rio de Janeiro, June 20, Seringal Filipinas, Acre, Brazil.

Staudhammer, C.L. 2007. Sampling and Experimental Design for Natural Resources Professionals. Centro de Pesquisa Agroflorestal do Acre (Embrapa Acre), June 26, Rio Branco, Acre, Brazil.

Staudhammer, C.L., K.A. Kainer, L.H.O. Wadt. 2007. Modelling Brazil nut demography and fruit fate in three Western Amazonian extractive areas. Seminar at the Program for Environmental Statistics, March 20, University of Florida, Gainesville, FL.

Staudhammer, C.L. 2007. Update on PPINES Eastern Series: Spacing by cultural interactions of elite Southern pine genotypes. Presented report at the annual meeting of the Forest Biology Research Cooperative, September 13, University of Florida, Gainesville, FL.

Staudhammer, C.L., B.E. Roth, L.F. Osorio. 2006. Predicting pure plot performance of elite full-sib genotypes from mixed plots. Presented report at the annual meeting of the Forest Biology Research Cooperative, October 1, University of Florida, Gainesville FL.

MEETING/SYMPOSIA ABSTRACTS AND ORAL PRESENTATIONS (*last five years*)

Staudhammer, C.L., K.A. Kainer, T.A. da Cunha, L.H.O. Wadt. 2016. What drives Brazil nut (*Bertholletia excelsa*) production? Factors in long-term variation of an important non-timber forest product. International Long-term Ecological Research Open Science Meeting. October 9-15, Kruger National Park, South Africa.

Staudhammer, C.L., M. Binford, L. Boring, A. Desai, M. Dietze, P. Duffy, J. Franklin, R. Kelly, W. Kleindl, M. Marsik, G. Starr, P. Stoy. 2016. Building forest management into Earth system modeling: Scaling from stand to continent. National Science Foundation - Macrosystems Biology Annual PI Meeting. September 29-30, Arlington, VA.

Malone, S.L., **C.L. Staudhammer**, M. Ryan., J. Parton., C. Keough., S.F. Oberbauer., P. Olivas., J. Schedlbauer., G. Starr. 2016. Ecosystem persistence in the face of climate change: A case study from the freshwater marshes of the Florida Everglades. 101st ESA Annual Meeting, August 7-12, Fort Lauderdale, FL.

Wiesner, S., H. Loescher, **C.L. Staudhammer**, A. Baron., L. Boring., R. Mitchell., G. Starr 2016.. Investigating the flat-tax hypothesis of ecosystem respiration: A case study with soil CO2 efflux from fire maintained longleaf pine savannas. 101st ESA Annual Meeting, August 7-12, Fort Lauderdale, FL.

*Kunwor, S., G. Starr, S.F. Oberbauer, S.L. Malone., **C.L. Staudhammer**. 2016. Parameterization of light and temperature models for two Everglades freshwater marshes. 101st ESA Annual Meeting, August 7-12, Fort Lauderdale, FL.

*Blood, A., G. Starr, F. Escobedo., A. Chappelka, **C.L. Staudhammer**. 2016. Comparing urban and peri-urban tree species composition and diversity in the southeastern US. 101st ESA Annual Meeting, August 7-12, Fort Lauderdale, FL.

*Venkatesan, A., S. F. Oberbauer, C. L. Staudhammer, S. L. Malone, G. Starr. 2016. Net Carbon Fluxes in the Florida Everglades: Examining Greenhouse Carbon Balance in Short- and Long-Hydroperiod Marshes. Florida Coastal Everglades LTER ASM. March 14-15. Miami, FL.

*Kunwor, S., S.F. Oberbauer, **C.L. Staudhammer**, S.L. Malone, G. Starr. 2016.

Parameterization of light and temperature models for two Everglades freshwater marshes. Florida Coastal Everglades LTER All Scientists Meeting, March 14-15, Miami, FL.

*Kunwor, S., **C.L. Staudhammer**, G. Starr, H.W. Loescher. 2015. Gap-filling methods to impute eddy covariance flux data by preserving variance. American Geophysical Union Fall 2015 meeting, December 14-18, San Francisco, CA.

*Malone, S.L., Staudhammer, C.L., Starr, G. 2015. Methods of Gap-filling Eddy Covariance Data. NEON. December 3, Boulder, CO.

Clerici, N., Escobedo, F.J., **C.L. Staudhammer**, G. Tovar. 2015. Inequalities in urban forest ecosystem service provision in Bogotá, Colombia. Cuarto Congreso Internacional de Servicios Ecosistémicos en los Neotrópicos: de la investigación a la acción, September 30-October 3, Mar del Plata, Argentina.

Pourmokhtarian, A., J. Hall, J.M. Becknell*, A.R. Desai, P.A. Duffy, J.F. Franklin, **C.L. Staudhammer**, Stoy, P.A, M.W. Binford, L.R. Boring, M. Dietze. 2015. Scaling forested ecosystem processes under disturbance regimes and forest management: case study of Southeast. ESA Annual Meeting, August 9-14, Baltimore, MD.

Pourmokhtarian, A., J.M. Becknell*, J. Hall, A.R. Desai, P.A. Duffy, **C.L. Staudhammer**, G. Starr, M. Dietze. 2015. Scaling Forest Management Practices in Earth System Models: Case Study of Southeast and Pacific Northwest Forests. 5th NACP PI Meeting, January 26-28, Washington DC.

Staudhammer, C.L., M. Binford, L. Boring, A. Desai, M. Dietze, P. Duffy, J. Franklin, G. Starr, P. Stoy, J. Becknell, J. Hall, A. Pourmokhtarian. 2015. Building forest management into Earth system modeling: Scaling from stand to continent. National Science Foundation - Macrosystems Biology Annual PI Meeting. August 6-7, Arlington, VA.

*Malone, S.L., J. Barr, J. Fuentes, S.F. Oberbauer, P. Olivas, J. Schedlbauer, **C.L. Staudhammer**, G. Starr. 2015. Vulnerability to cold events: implications for CO2 dynamics in Everglades ecosystems. Florida Coastal Everglades LTER All Scientists Meeting, January 5-6, Miami, FL.

Pourmokhtarian, A., J. Becknell*, J. Hall, A. Desai, L. Boring, P. Duffy, **C. L. Staudhammer**, G. Starr, M. Dietze. 2014. Scaling Forest Management Practices in Earth System Models: Case Study of Southeast and Pacific Northwest Forests. American Geophysical Union Fall 2014 meeting, December 14-19, San Francisco, CA.

*Blood, A.M. and **C.L. Staudhammer**. 2014. Investigating crown width and height of urban trees in the Southeast. Joint Northeastern and Southern Mensurationists Meeting, November 2-4, Raleigh, NC.

*Blood, A.M., **C.L. Staudhammer**, G. Starr, A. H. Chappelka, D. Hartel. 2014. Urban tree crown attributes in the southeastern US: Differences in model form and driving factors by species and location. 99th ESA Annual Meeting. August 10-15, Sacramento, CA.

Starr, G., J. Becknell, **C.L. Staudhammer**, S. Wiesner, H.W. Loescher, A. Baron, A. Whelan, R.J. Mitchell. 2014. The cyclic role of fire in the movement of carbon through longleaf pine ecosystems. Ecological Society of America 99th Annual Meeting, August 10-15. Sacramento, CA.

Wiesner, S., A. Baron, **C.L. Staudhammer**, G. Starr. 2014. Effects of repeated fire and environmental variation on the efflux of CO2 from soils of a subtropical woodland savanna. 99th ESA Annual Meeting. August 10-15, Sacramento, CA.

Kainer, K.A., L.H.O. Wadt, **C.L. Staudhammer**. 2014. Brazil nut responses 10 years after liana cutting. Society of American Foresters National Convention. October 8-11, Salt Lake City, Utah.

*Blood, A.M. and **C.L. Staudhammer**. 2014. Tree Biodiversity within Urban Forests of the Southeastern United States. E.O. Wilson Biodiversity Symposium, April 22-24, Tuscaloosa, AL.

*Malone, S.L., Keough, C., **Staudhammer, C.L.**, Ryan, M.G., Parton, W.J., Starr, G. 2014. Ecosystem persistence in the face of climate change: A case study from the freshwater marshes of the Florida Everglades. Florida Coastal Everglades All Scientist Meeting, March 10-11, Miami Florida.

*Malone, S.L., **Staudhammer, C.L.**, Oberbauer, S.F., Olivas, P., Ryan, M.G., Schedlbauer, J., Loescher, H.W., Starr, G. 2014. El Niño Southern Oscillation (ENSO) amplifies precipitation extremes, enhancing CO2 exchange rates in freshwater marsh ecosystems in the Florida Everglades. Florida Coastal Everglades All Scientist Meeting, March 10-11, Miami, Florida.

Staudhammer, C.L., F.J. Escobedo, T.J. Brandeis. 2013. Assessment of model uncertainty via Bootstrap methods: procedures for evaluating ill-fitting models. 2nd IUFRO Conference on Complex Forest Ecosystems: from Tree to Landscape and Southern Mensurationists Meeting. October 7-9, New Orleans, LA.

Staudhammer, C.L., M. Binford, L. Boring, A. Desai, M. Dietze, P. Duffy, J. Franklin, R. Mitchell, G. Starr, P. Stoy, and J. Hall. 2013. Building forest management into Earth system modeling: Scaling from stand to continent. National Science Foundation - Macrosystems Biology Annual PI Meeting. June 6-7, Arlington, VA.

*Malone, S., **C.L. Staudhammer**, H. Loescher, P. Olivas, S.F. Oberbauer, G. Starr. 2013. Hydrological influences on energy flux components of two freshwater marsh ecosystems in the Florida Everglades. 4th Annual Frontiers in Biology Research Colloquium, Dept. of Biological Sciences, University of Alabama. March 16, Tuscaloosa, AL.

*Boyd, J. P., **C.L. Staudhammer**, G. Starr, J. L. Hart, R. Mitchell. 2013. Quantifying the drivers of longleaf pine regeneration. 4th Annual Frontiers in Biology Research Colloquium, Dept. of Biological Sciences, University of Alabama. March 16, Tuscaloosa, AL.

Brandeis, T.J., F.J. Escobedo, **C.L. Staudhammer**, S. Varela, W. Zipperer, D. Nowak. 2012. The 2010 urban forest inventory of the San Juan Bay Estuary watershed. 14th Caribbean Urban and Community Forestry Conference, October 25, Charlotte Amalie, St. Thomas, U.S. Virgin Islands.

Whelan, A., G. Starr, R. Mitchell, J.D. McGee, **C.L. Staudhammer** H. Loescher. 2012. Effects of cyclic fire and water availability on longleaf pine carbon dynamics. Ecological Society of America 97th Annual Meeting, August 5-10, Portland, OR.

*Malone, S., G. Starr, **C.L. Staudhammer**, S.F. Oberbauer, M.G. Ryan. 2012. Effects of simulated drought on physiological activity of Everglades short-hydroperiod marsh.

Ecological Society of America 97th Annual Meeting, August 5-10, Portland, OR.

*Boyd, J.P., **C.L. Staudhammer**, G. Starr, J.L. Hart, R. Mitchell. 2012. Quantifying the drivers of longleaf pine regeneration. Ecological Society of America 97th Annual Meeting, August 5-10, Portland, OR.

Jarnigan, J.R., G. Starr, **C.L. Staudhammer**, J.A. Cherry, B. Mortazavi. 2012. Ecosystem carbon dynamics along a productivity gradient following the BP Deepwater Horizon oil spill. Ecological Society of America 97th Annual Meeting, August 5-10, Portland, OR.

Whelan, A., G. Starr, R. Mitchell, J.D. McGee, **C.L. Staudhammer**, J. Wright, H. Loescher. 2012. The role of prescribed fire and soil moisture on longleaf pine carbon dynamics. 3rd Annual Frontiers in Biology Research Colloquium, Department of Biological Sciences, The University of Alabama. March 23, Tuscaloosa, AL.

*Malone, S.L., G. Starr, **C.L. Staudhammer**, S. Oberbauer, M. G. Ryan. 2012. Ecosystem responses to simulated drought in everglades freshwater marl marshes. 3rd Annual Frontiers in Biology Research Colloquium, Department of Biological Sciences, The University of Alabama. March 23, Tuscaloosa, AL.

Jarnigan, J. G. Starr, **C.L. Staudhammer**, J. Cherry, B. Mortazavi. 2012. Effects of the BP Deepwater Horizon crude oil spill on marsh vegetation carbon dynamics. 3rd Annual Frontiers in Biology Research Colloquium, Department of Biological Sciences, The University of Alabama. March 23, Tuscaloosa, AL.

Whelan, A., G. Starr, R. Mitchell, J.D. McGee, **C.L. Staudhammer**, J. Wright, H. Loescher. 2012. How fire and water availability interact to affect carbon dynamics in longleaf pine ecosystems. Jones Center Science Steering Committee Annual Review. February 7-9. Jones Center, Newton, GA.

Gyeltshen, N., A. Darabant, **C.L. Staudhammer**, P.B. Rai. 2012. Harvesting of *Borinda grossa* for current-year culm production. 9th World Bamboo Congress. April 9-12, Antwerp, Belgium.

Staudhammer, C.L., G. Starr, R. Mitchell. 2011. Using bootstrapping techniques to assess Prescribed Fire's Role in Long Leaf Pine Forest Carbon Dynamics. Southern Mensurationists Meeting, October 23-25, 2011, Memphis, TN.

Oberbauer, S.F., J.L. Schedelbauer, K.L. Jimenez, G. Starr, **C.L. Staudhammer**, H. Loescher. 2011. Carbon dioxide exchange rates from long- and short-hydroperiod marsh in the Florida Everglades: responses to variation in water level. Department of Energy, AmeriFlux/NACP All Investigators Meeting, January 31-February 4, New Orleans, LA.

Whelan, A., G. Starr, R. Mitchell, J.D. McGee, **C.L. Staudhammer**, J. Wright, H. Loescher 2011. The role of prescribed fire on longleaf pine carbon dynamics along an edaphic moisture gradient. Department of Energy, AmeriFlux/NACP All Investigators Meeting, January 31-February 4, New Orleans, LA.

HONORS AND AWARDS

- Featured in story in the online magazine *Environmental Monitoring* (www.fondriest.com/news/everglades-restoration-effects-greenhouse-gases-study.htm)

- Awarded Excellence in Academic Advising award, University of Alabama Office for Academic Affairs (2016)
- Featured on UA homepage "UA Researchers Receive NSF Grant to Study Everglades' Greenhouse Gases": http://uanews.ua.edu/2016/06/ua-researchers-receive-nsf-grant-to-study-everglades-greenhouse-gases/
- Featured in the Florida Coastal Everglades Long-Term Ecological Research Newsletter "FCE Spotlight: New Collaborator", Volume 6(1): spring 2016.
- Featured on Universidade Federal do Acre homepage (March 18, 2015): http://www.ufac.br/portal/news/pesquisadores-estudam-comportamento-produtivo-de-castanheiras-no-acre
- Awarded $1000 to attend the 2014 NSF-sponsored Workshop on Bayesian Modeling for Practicing Ecologists (Colorado State University, May 21-30, 2014).
- Awarded R$98000 from CAPES (Coordenação de Aperfeiçoamento de Pessoal de Educação, Brazil) - Programa Pesquisador Visitante Especial (Special Visiting Researcher Program) to participate as a visiting researcher at Universidade Federal do Acre, Rio Branco, Brazil (PI: Dr. Thiago Augusto da Cunha; 2014-2017)
- Awarded R$6500 from CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico, Brazil) to travel to Acre, Brazil as a visiting researcher (PI: Dr. Lucia Wadt, Embrapa Acre, Rio Branco, Acre Brazil) (2013)
- Featured *JGR-Biogeosciences* article in *EOS*, the Newsletter of the American Geophysical Union (November 2012)
- Runner-up, Brumbaugh Award (American Society for Quality award for journal article that made the largest contribution to the development of quality control).(2007)
- Finalist, Marra Award (Society of Wood Science and Technology award for the best paper in *Wood and Fiber Science*) (2006)

STUDENT MENTORSHIP

Graduate students in progress:

Caruso, Nick (expected completion date: fall 2016) – Co-chair (PhD) Dissertation: "Range Dynamics and Range Limits of a Montane Endemic Salamander"

Kunwor, Sujit (expected completion date: spring 2019) – Co-Chair (PhD) Dissertation: TBA

Graduate students completed:

Blood, Amy (spring 2016) – Chair (MS) Thesis: "Regional models of urban tree crown characteristics."

Kunwor, Sujit (spring 2016) – Chair (MS) Thesis: "Preserving variance structure in gap-filling methods for carbon flux data"

Malone, Sparkle (spring 2014) – Co-Chair (PhD) Dissertation: "Changes in the greenhouse carbon balance of Everglades freshwater marshes in response to natural and anthropogenic alterations in hydrological conditions."

Hyman, Michael (fall 2013) – Co-chair (PhD, University of Florida) Dissertation: "Estimation of Confidence Intervals for Ripley's K-function of Spatial Point Processes"

Timilsina, Nilesh (fall 2010) – Chair (PhD, University of Florida) Dissertation: "Stand structure of slash pine (*Pinus elliottii*) under different management regimes and conversion of even-aged slash pine stands into uneven-aged management"

Malone, Sparkle (summer 2010) – Co-chair (MS, University of Florida) Thesis: "Effect of fire size and severity on subsequent fires using difference normalized burn ratios in Florida pine dominated flatwood forests"

Lawrence, Alicia Bowen (summer 2010) – Co-chair (MS, University of Florida) Thesis: "Development of urban tree growth, mortality, and carbon sequestration rates in the Southeastern US"

Bush, Todd (summer 2010) – Co-chair (MS, University of Florida) Thesis: "Self heating of wood pellets made from southern yellow pine: causes and prevention"

Thompson, Benjamin (fall 2009) – Co-chair (MS, University of Florida) Thesis: "Modeling hurricane-caused tree debris in Houston, Texas"

Londres, Marina (spring 2009) – Co-chair (MS, University of Florida) Thesis: "Population structure and fruit production variation of Andiroba (*Carapa guianensis* Aubl.) in tidal floodplain forest of the Amazon estuary"

Valle, Denis (spring 2008) – Chair (MS, University of Florida) Thesis: "Assessing uncertainty in forest dynamic models"

Tohver, Ingrid Marisa (summer 2006) – Co-chair (MS, University of Florida) Thesis: "Understory tree response to throughfall precipitation exclusion in the Eastern Amazon"

POSTDOCTORAL FELLOWS MENTORED

Dr. Justin Becknell (funded under NSF Macrosystems grant: 2013-2015)

THESIS/DISSERTATION COMMITTEE MEMBER

Graduate students in progress:

Marson, Kristy (expected completion date: fall 2016) – Member (MS) Thesis: "Factors Influencing Phenotypic Variation and Fitness at the Population and Regional Scales in Mangrove Rivulus Fish (*Kryptolebias marmoratus*)"

George, Satyra (expected completion date: fall 2016) – Member (MS) Thesis: "Carbon, water, and Energy Fluxes within a Loblolly Pine Forest Selected and Managed as a Cellulosic Bioenergy Crop"

Wiesner, Susanne (expected completion date: fall 2017) – Member (PhD) Dissertation: "Maximum Entropy in Longleaf Pine Ecosystems"

Oza, Vishal (expected completion date: spring 2018) – Member (PhD) Dissertation: TBA

Davis, Kelsi (expected completion date: fall 2018) – Member (MS) Thesis: "Biotic and Abiotic Controls over Tropical Rainforest Aboveground Biomass on the Osa Peninsula, Costa Rica"

Graduate students completed:

Wilmot, Oliver (summer 2016) – Member (MS) Thesis: "Temperature dependence of leaf litter breakdown in nine forest streams along a regional thermal gradient"

Bertwell, Todd (spring 2016) – Member (MS, University of Florida) Thesis: "Modeling sustainability of Brazil nut (*Bertholletia excelsa*) harvests"

Jarnigan, Julie (spring 2013) – Member (MS) Thesis: "Carbon Dynamics in Saltwater Marsh Ecosystems along a Productivity Gradient."

Zeidemann, Vivian (fall 2011) – Member (PhD, University of Florida) Dissertation: "The role of institutional arrangements for Brazil nut sustainable use and management"

Rockwell, Cara (fall 2011) – Member (PhD, University of Florida) Dissertation: "Enhancing smallholder-based development options: timber management in bamboo-dominated forests"
Carvalho, Eric (spring 2011) – Member (MS, University of Florida) Thesis: "Persistence after disturbances: the importance of sprouting for species survival and biomass recovery in shrub-tree patches in the Chapada Diamantina, Brazil"
Soriano, Marlene (summer 2010) – Member (MS, University of Florida) Thesis: "Compatibility of conventional logging with Brazil nut extraction in the Bolivian Amazon"
Camp, Edward(spring 2010) – Member (MS, University of Florida) Thesis: "Fish-habitat relationships in Florida springs: Do submersed plants and filamentous algae influence the population structure and production of small-bodied fishes?"
Klimas, Christie (spring 2010) – Member (PhD, University of Florida) Dissertation: "Deforestation alternatives: economic revenue from sustainable forest use"
Biedenweg, Kelly (spring 2010) – Member (PhD, University of Florida) Dissertation: "Social learning in response to community forest management workshops"
Tamang, Bijay (fall 2009) – Member (PhD, University of Florida) Dissertation: "Performance, root distribution and carbon sequestration potential of living windbreaks in Florida"
Lee, Hanna (spring 2009) – Member (PhD, University of Florida) Dissertation: "Factors affecting thermokarst formation in tussock tundra"
Coggins, Lewis (spring 2008) – Member (PhD, University of Florida) Dissertation: "Factors influencing native fish population dynamics in Grand Canyon"
MacPherson, Alexander (spring 2007) – Member (PhD, University of Florida) Dissertation: "Economics of logging concessions in Brazilian public lands"

UNDERGRADUATE STUDENTS MENTORED

Work Study/Research Experience for Undergraduates

Shay, Kathryn (2016-2017) – "Relationships between forest structure and carbon dynamics in natural forested systems"
Shay, Kathryn (2015) – "Establishment of a long-term ecosystem plot and remote sensing based monitoring network to understand and mitigate the impacts of invasive species and climate change at the UA's Tanglewood Biological Station natural area"
Leder, Natalie (2014) "Regional Urban Forest i-Tree Eco Inventory Study"
Venkatesan, Anjana (2013-2014) "Building forest management into Earth system modeling: Scaling from stand to continent", University of Alabama grant from NSF.
Leonard, Jennifer (2011) "Tree regeneration: A new approach to study design and analysis", Joseph Jones Ecological Research Center.

Independent Research

Yang, Samuel (2016) "Quantifying the relationship between urban forest cover and mental human health"
Barham, William G. (2015) "University of Alabama i-Tree Inventory: Phase 1"
Young, Ronald (2013) "University of Alabama Arboretum Tree Inventory: Phase 1"
Cobia, Ethan (2013) "University of Alabama Arboretum Tree Inventory: Phase 1"
Hodges, Christine (2013) "University of Alabama Arboretum Tree Inventory: Phase 1"

MAJOR ADVISOR (DEGREE AWARDED)

MS: Dr. Valerie LeMay (Department of Forest Resources Management, The University of British Columbia, Vancouver, Canada) – Quantifying forest stand diversity using stand structure

PhD: Dr. Robert Kozak (Department of Wood Science, Faculty of Forestry, The University of British Columbia, Vancouver, Canada) and Dr. Thomas Maness (currently, Dean of the College of Forestry, Oregon State University) – Statistical Procedures for Development of Real-Time Statistical Process Control (SPC) in Lumber Manufacturing

TEACHING

Term	Year	Course No.	Course Title	*No. Students Enrolled*
University of Alabama				
Fall	2016	BSC 695	Experimental Design and Analysis	11
Fall	2016	BSC 699	Dissertation Research	1
Spring	2016	BSC 598	Non-thesis Research	2
Spring	2016	BSC 380	Introduction to Probability and Statistics for Biologists	75
Spring	2016	BSC 607	Advanced Research Techniques in Biology	2
Spring	2016	BSC 699	Dissertation Research	1
Fall	2015	BSC 598	Non-thesis Research	1
Fall	2015	BSC 497	Foundations in Forest Resources Conservation	13
Fall	2015	BSC 607	Advanced Research Techniques in Biology	2
Fall	2015	BSC 695	Greenhouse Gas Data Training	4
Fall	2015	BSC 695	Pine Ecology, Management, and Restoration	2
Fall	2015	BSC 699	Dissertation Research	1
Summer	2015	BSC 398	Undergraduate Research	1
Spring	2015	BSC 380	Introduction to Probability and Statistics for Biologists	53
Spring	2015	BSC 598	Non-thesis Research	1
Fall	2014	BSC 497	Foundations in Advanced Biostatistics	5
Fall	2014	BSC 695	Foundations in Advanced Biostatistics	5
Fall	2014	BSC 598	Non-thesis Research	1
Spring	2014	BSC 497	Foundations in Forest Resources Conservation	11
Spring	2014	BSC 598	Non-thesis Research	1
Spring	2014	BSC 695	Experimental Design and Analysis	7
Spring	2014	BSC 699	Dissertation Research	1
Fall	2013	BSC 380	Introduction to Probability and Statistics for Biologists	38
Fall	2013	BSC 699	Dissertation Research	1
Spring	2013	BSC 398	Undergraduate Research	3
Spring	2013	BSC 497	Foundations in Advanced Biostatistics	1
Spring	2013	BSC 695	Foundations in Advanced Biostatistics	10
Spring	2013	BSC 507	Research Techniques in Biology	1
Spring	2013	BSC 598	Non-thesis Research	1
Spring	2013	BSC 699	Dissertation Research	1
Fall	2012	BSC 507	Research Techniques in Biology	1
Fall	2012	BSC 380	Introduction to Probability and Statistics for Biologists	32
Fall	2012	BSC 599	Thesis Research	1
Spring	2012	BSC 497	Experimental Design and Analysis	1

Term	Year	Course No.	Course Title	*No. Students Enrolled*
Spring	2012	BSC 695	Experimental Design and Analysis	12
Spring	2012	BSC 507	Research Techniques in Biology	1
Fall	2011	BSC 497	Introduction to Probability and Statistics for Biologists	7
Fall	2011	BSC 507	Research Techniques in Biology	1
Fall	2011	BSC 699	Dissertation Research	1
Spring	2011	BSC 507	Research Techniques in Biology	1
Spring	2011	BSC 497	Forestry in the Private Sector	21
Spring	2011	BSC 497	Experimental Design and Analysis	5
Spring	2011	BSC 695	Experimental Design and Analysis	10
Spring	2011	BSC 699	Dissertation Research	1
University of Florida				
Fall	2009	FOR 6934	Advanced Topics in Forest Biometrics	9
Fall	2009	FNR 3410C	Natural Resources Sampling	27
Fall	2009	FOR 6905	Supervised individual studies: Advanced Methods in Natural Resources Sampling	2
Spring	2009	FOR 6905	Supervised individual studies: Statistical Process Control in Wood Products Manufacturing	1
Summer	2009	FOR 3200	Foundations in Forest Resources Conservation	13
Fall	2008	FNR 3410C	Natural Resources Sampling	21
Fall	2008	FOR 6934	Ecological Statistics	29
Summer	2008	FOR 3200	Foundations in Forest Resources Conservation	18
Spring	2008	FOR 6905	Supervised individual studies: Sampling Protocols	1
Fall	2007	FOR 6934	Advanced Topics in Forest Biometrics	8
Fall	2007	FNR 3410C	Natural Resources Sampling	33
Fall	2006	FNR 3410C	Natural Resources Sampling	23
Spring	2007	FOR 6905	Supervised individual studies: Statistical Methods in Ecology	1
Fall	2006	FOR 6934	Ecological Statistics	33
Spring	2006	FOR 6933	Graduate Seminar in Forest Resources Conservation	9
Fall	2005	FNR 3410C	Natural Resources Sampling	29
Fall	2005	FOR 6933	Graduate Seminar in Forest Resources Conservation	6