JEREMY W. LICHSTEIN
Curriculum Vitae

University of Florida
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POSITIONS

2023-	Professor, University of Florida, Department of Biology
2018-23	Associate Professor, University of Florida, Department of Biology
2011-18	Assistant Professor, University of Florida, Department of Biology
2007-10	Postdoctoral Research Fellow, Princeton University, Department of Ecology and Evolutionary Biology

EDUCATION

2007	Ph.D.	Ecology and Evolutionary Biology, Princeton University
2000	M.S.	Zoology (Statistics minor), North Carolina State University
1995	B.A.	College of Liberal Arts Honors Program, University of Texas at Austin

RESEARCH & TEACHING INTERESTS

Forest ecology, carbon cycle, climate change, global change biology, community and ecosystem ecology, biodiversity, quantitative methods

HONORS & AWARDS (selected)

University of Florida Term Professorship, 2021-24
Sabbatical fellow, German Centre for Integrative Biodiversity Research, 2018-19
University of Florida Excellence Award for Assistant Professors, 2016
Florida Climate Institute Faculty Fellow, 2016
Princeton University Honorific Fellowship, 2006-07
Princeton University Centennial Fellowship in Sciences and Engineering, 2002-07
Fulbright Scholarship, Argentina, 2000-01
NSF Graduate Research Fellowship, 1998-2000
Andrews Graduate Fellowship, North Carolina State University, 1997-99

FUNDING

Grants awarded ($3.3 million total; $2 million allocated to Lichstein)

USDA Forest Service 21-JV-11242305-097. Quantifying changes in the dynamics of U.S. forests using national forest inventory data and novel modeling approaches. PI: **J.W. Lichstein**. $489,894. 2021-26.

NASA FINESST 80NSSC19K1343. Vegetation dynamics as drivers of albedo change in northern high latitude ecosystems. PI: **J.W. Lichstein** (future investigator: Elizabeth Webb). $133,522. 2019-2022.

University of Florida seed grant (UF Biodiversity and Informatics Institutes). Informatics tools for studying functional and phylogenetic diversity of forests. PIs: **J.W. Lichstein** and E.P. White. $43,000 ($15,000 to Lichstein). 2019-20.

NSF OPP-1708129. Collaborative Research: Fire Influences on Forest Recovery and Associated Ecosystem Feedbacks in Arctic Larch Forests. PI: **J.W. Lichstein**. $382,087. 2017-24.

USDA Forest Service 16-JV-11242306-050. Landscape-scale forest carbon and climate assessments: decision support for managers and policy makers. PIs: **J.W. Lichstein**, D.Y. Hollinger. $340,004. 2016-21.

NSF DEB-1442280. Dimensions US-China: How historical constraints, local adaptation, and species interactions shape biodiversity across an ancient floristic disjunction. PI: P. Soltis; Co-PIs: **J.W. Lichstein**, M.C. Mack, D. Soltis, E. Triplett. $1,199,043 ($328,987 to Lichstein). 2015-19.

USDA Forest Service 11-JV-11242306-059. Modeling the response of US forests to global change: decision support for managers and policy makers. PIs: **J.W. Lichstein**, R.A. Birdsey. $443,303. 2011-16.

NSF IOS-1051789. Temperature responses of leaf dark respiration and their implications for tropical forest carbon balance. PI: K. Kitajima; Co-PIs: S.J. Wright, **J.W. Lichstein (lead PI 2013-16)**, H. Muller-Landau, S.A. Bohlman. $444,698 ($99,575 to Lichstein). 2011-16.

USDA Forest Service 09-JV-11242306-051. Sustaining U.S. forests and managing carbon under a changing climate: a decision support system for land managers. PIs: S.W. Pacala, **J.W. Lichstein**. $107,000 ($0 to Lichstein due to postdoctoral status). 2009-10.

PUBLICATIONS

U = undergraduate advisee
G = graduate student advisee (I served as committee chair or member)
P = postdoctoral advisee

Refereed journal articles

Google Scholar: https://scholar.google.com/citations?user=hx5g9hwAAAAJ&hl=en

(58) Hogan, J.A.[P], G.M. Domke, K. Zhu, D.J. Johnson, and **J.W. Lichstein**. 2024. Climate change determines the sign of productivity trends in US forests. *Proceedings of the National Academy of Sciences U.S.A.* 121:e2311132121 (pp. 1-11).

(57) Webb, E.E.[P], H.D. Alexander, A.K. Paulson, M.M. Loranty, J. DeMarco, A.C. Talucci, V. Spektor, N. Zimov, and **J.W. Lichstein**. 2024. Fire-induced carbon loss and tree mortality in Siberian larch forests. *Geophysical Research Letters* 51, e2023GL105216 (pp. 1-12).

(56) Webb, E.E.[G], A.K. Lijedahl, M.M. Loranty, C. Witharana, and **J.W. Lichstein**. 2023. Reply to: Detecting long-term Arctic surface water changes. *Nature Climate Change* 13.

(55) Holm. J.A., D.M. Medvigy, B. Smith, J.S. Dukes, M. Mishurov, X. Xu, **J.W. Lichstein**, C. Beier, C.D. Allen, K.S. Larsen, Y. Luo, C. Ficken, W.T. Pockman, W.R.L. Anderegg, and A. Rammig. 2023. Exploring the impacts of unprecedented climate extremes on forest ecosystems: hypotheses to guide modeling and experimental studies. *Biogeosciences* 20:2117-2142.

(54) Webb, E.E.[G], A.K. Lijedahl, J.A. Cordeiro[U], M.M. Loranty, C. Witharana, and **J.W. Lichstein**. 2022. Permafrost thaw drives surface water decline across lake-rich regions of the Arctic. *Nature Climate Change* 12:841-846.

(53) Liu, Y., K. Ogle, **J.W. Lichstein**, and S.T. Jackson. 2022. Estimation of pollen productivity and dispersal: Using pollen assemblages in small lakes to understand vegetation composition. *Ecological Monographs* e1513 (pp. 1-19).

(52) Webb, E.E.[G], M.M. Loranty, and **J.W. Lichstein**. 2021. Surface water amplifies the Arctic-boreal albedo feedback. *Environmental Research Letters* 16:084046 (pp. 1-10).

(51) **Lichstein, J.W.**, B. Peterson[U], J. Langebrake[P], and S. McKinley. 2021. Leaf economics of early- and late-successional plants. *American Naturalist* 198:347-359.

(50) Crawford, M.S., K.E. Barry, A.T. Clark, C.E. Farrior, J. Hines, E. Ladouceur, **J.W. Lichstein**, I. Maréchaux, F. May, A.S. Mori, B. Reineking, L.A. Turnbull, C. Wirth, and N. Rüger. 2021. The function-dominance correlation drives the direction and strength of biodiversity-ecosystem functioning relationships. *Ecology Letters* 24:1762-1775.

(49) Dugan, A.J., **J.W. Lichstein**, A. Steele, J.H. Metsaranta, S. Bick, and D. Hollinger. 2021. Opportunities for forest sector emissions reductions: a state-level analysis. *Ecological Applications* 35:e02327 (pp. 1-15).

(48) Zhang, T.[P], G.M. Domke, M.B. Russell, and **J.W. Lichstein**. 2021. An index for measuring functional extension and evenness in trait space. *Ecology and Evolution* 11:7461-7473.

(47) Blundo, C., A. Malizia, L.R. Malizia, and **J.W. Lichstein**. 2021. Forest biomass stocks and dynamics across the subtropical Andes. *Biotropica* 53:170-178.

(46) McDowell, N.G., C.D. Allen, K. Anderson-Teixeira, B.H. Aukema, B. Bond-Lamberty, L. Chini, J.S. Clark, M. Dietze, C. Grossiord, A. Hanbury-Brown, G.C. Hurtt, R.B. Jackson, D.J. Johnson, L. Kueppers, **J.W. Lichstein**, K. Ogle, B. Poulter, T.A.M. Pugh, R. Seidl, M.G. Turner, M. Uriarte, A.P. Walker, C. Xu. 2020. Pervasive shifts in forest dynamics in a changing world. *Science* 368:964-975.

(45) Rüger, N., R. Condit, D.H. Dent, S.J. DeWalt, S.P. Hubbell, **J.W. Lichstein**, O.R. Lopez, C. Wirth, and C.E. Farrior. 2020. Demographic tradeoffs predict tropical forest dynamics. *Science* 368:165-168.

(44) Kattge, J., et al. 2020. TRY plant trait database – enhanced coverage and open access. *Global Change Biology* 26:119-188.

(43) Park, J.Y.[G], H.C. Muller-Landau, **J.W. Lichstein**, S.W. Rifai, J.P. Dandois, and S.A. Bohlman. 2019. Quantifying leaf phenology of individual trees and species in a tropical forest using unmanned aerial vehicle (UAV) images. *Remote Sensing* 11:1534 (pp. 1-17).

(42) Osnas, J.L.D.[P], M. Katabuchi[P], S.J. Wright, K. Kitajima, N. Kraft, P.B. Reich, M.J. Samaniego, S.A. Van Bael, S.W. Pacala, and **J.W. Lichstein**. 2018. Divergent drivers of leaf trait variation within species, among species, and among functional groups. *Proceedings of the National Academy of Sciences U.S.A.* 115:5480-5485.

(41) Zhang, T.[P], Ü. Niinemets, J. Sheffield, and **J.W. Lichstein**. 2018. Shifts in tree functional composition amplify the response of forest biomass to climate. *Nature* 556:99-102.

(40) Fell, M., J. Barber, **J.W. Lichstein**, and K. Ogle. 2018. Multidimensional trait space informed by a mechanistic model of tree growth and carbon allocation. *Ecosphere* 9(1):e02060 (pp. 1-25).

(39) Fisher, R.A., C.D. Koven, W.R.L. Anderegg, B.O. Christoffersen, M.C. Dietze, C. Farrior, J.A. Holm, G. Hurtt, R.G. Knox, P.J. Lawrence, **J.W. Lichstein**, M. Longo, A.M. Matheny, D. Medvigy, H.C. Muller-Landau, T.L. Powell, S.P. Serbin, H. Sato, J. Shuman, B. Smith, A.T. Trugman, T. Viskari, H. Verbeeck, E. Weng, C. Xu, X. Xu, T. Zhang[P], P. Moorcroft. 2018. Vegetation demographics in Earth System Models: A review of progress and priorities. *Global Change Biology* 24:35-54.

(38) Liao, W., D.N.L. Menge, **J.W. Lichstein**, and G. Ángeles-Pérez. 2017. Global climate change will increase the abundance of symbiotic nitrogen-fixing trees in much of North America. *Global Change Biology* 23:4777-4787.

(37) Menge, D.N.L., S.A. Batterman, W. Liao, B.N. Taylor, **J.W. Lichstein**, and G. Ángeles-Pérez. 2017. Nitrogen-fixing trees comprise similar fractions of tree diversity in higher-latitude and lower-latitude forests in North America despite wide differences in abundance. *Ecology Letters* 20:842-851.

(36) Huang, Y.[G], S. Gerber, T. Huang[G], and **J.W. Lichstein**. 2016. Evaluating the drought response of CMIP5 models using global gross primary productivity, leaf area, precipitation, and soil moisture data. *Global Biogeochemical Cycles*, 30, doi:10.1002/2016GB005480 (pp. 1-20).

(35) Caughlin, T.T.[P], S. Elliott, and **J.W. Lichstein**. 2016. When does seed limitation matter for scaling up reforestation from patches to landscapes? *Ecological Applications* 26(8):2439-2450.

(34) Rifai, S.W.[G], J.D.U. Muñoz, R. Negrón-Juarez, F.R.R. Arévalo, R. Tello-Espinoza, M.C. Vanderwel[P], **J.W. Lichstein**, J.Q. Chambers, and S.A. Bohlman. 2016. Landscape-scale consequences of differential tree mortality from catastrophic wind disturbance in the Amazon. *Ecological Applications* 26(7):2225-2237.

(33) Tautenhahn, S., **J.W. Lichstein**, M. Jung, J. Kattge, S.A. Bohlman, H. Heilmeier, A. Prokushkin, A. Kahl, and C. Wirth. 2016. Dispersal limitation drives successional pathways in Central Siberian forests under current and intensified fire regimes. *Global Change Biology* 22:2178-2197.

(32) Vanderwel, M.C.[P], H. Zeng, J.P. Caspersen, G. Kunstler, and **J.W. Lichstein**. 2016. Demographic controls of aboveground forest biomass across North America. *Ecology Letters* 19:414-423.

(31) Anderegg W.R.L., J.A. Hicke, R.A. Fisher, C.D. Allen, J. Aukema, B. Bentz, S. Hood, **J.W. Lichstein**, A.K. Macalady, N. McDowell, Y. Pan, K. Raffa, A. Sala, J.D. Shaw, N.L. Stephenson, C. Tague, and M. Zeppel. 2015. Tree mortality from drought, insects, and their interactions in a changing climate. *New Phytologist* 208:674-683. [Faculty of 1000 recommended: http://f1000.com/prime/725547750]

(30) Weng, E., S. Malyshev, **J.W. Lichstein**, C.E. Farrior, R. Dybzinski, T. Zhang[P], E. Shevliakova, and S.W. Pacala. 2015. Scaling from individuals to ecosystems in an Earth System Model using a mathematically tractable model of height-structured competition for light. *Biogeosciences* 12:2655-2694.

(29) Vanderwel, M.C.[P], M. Slot[G], **J.W. Lichstein**, P.B. Reich, J. Kattge, O.K. Atkin, K.J. Bloomfield, M.G. Tjoelker, and K. Kitajima. 2015. Global convergence in leaf

respiration from estimates of thermal acclimation across time and space. *New Phytologist* 207:1026-1037.

(28) Caughlin, T.T.[G], J. Ferguson, and **J.W. Lichstein**, P.A. Zuidema, S. Bunyavejchewin, and D. Levey. 2015. Loss of animal seed dispersal increases extinction risk in a tropical tree species due to pervasive negative density dependence across life stages. *Proceedings of the Royal Society B* 298:20142095 (pp. 1-9).

(27) Slot, M.[G], C. Rey-Sánchez, S. Gerber, **J.W. Lichstein**, K. Winter, and K. Kitajima. 2014. Thermal acclimation of leaf respiration of tropical trees and lianas: response to experimental canopy warming, and consequences for tropical forest carbon balance. *Global Change Biology* 20:2915-2926.

(26) Menge, D.N.L., **J.W. Lichstein**, and G. Ángeles-Pérez. 2014. Nitrogen fixation strategies explain the latitudinal shift in nitrogen-fixing tree abundance. *Ecology* 95(8):2236-2245.

(25) **Lichstein, J.W.**, N. Golaz, S. Malyshev, E. Shevliakova, T. Zhang[P], J. Sheffield, R. A. Birdsey, J.L. Sarmiento, and S.W. Pacala. 2014. Confronting terrestrial biosphere models with forest inventory data. *Ecological Applications* 24(4):699-715.

(24) Caughlin, T.T.[G], J. Ferguson, **J.W. Lichstein**, S. Bunyavejchewin, and D. Levey. 2014. The importance of long distance seed dispersal for the demography and distribution of a canopy tree species. *Ecology* 95:952-962.

(23) Chen, A., **J.W. Lichstein**, J.L.D. Osnas, and S.W. Pacala. 2014. Species-independent down-regulation of leaf photosynthesis and respiration in response to shading: evidence from six temperate forest tree species. *PLoS ONE* 9(4):e91798 (pp. 1-11).

(22) Zhang, T.[P], **J.W. Lichstein**, and R.A. Birdsey. 2014. Spatial and temporal heterogeneity in the dynamics of eastern U.S. forests: implications for developing broad-scale forest dynamics models. *Ecological Modelling* 279:89-99.

(21) Ogle, K., S. Pathikonda, K. Sartor, **J.W. Lichstein**, J.L.D. Osnas, and S.W. Pacala. 2014. A model-based meta-analysis for estimating species-specific wood density and identifying potential sources of variation. *Journal of Ecology* 102:194-208.

(20) Melvin, A.M., **J.W. Lichstein**, and C.C. Goodale. 2013. Forest liming increases forest floor carbon and nitrogen stocks in a mixed hardwood forest. *Ecological Applications* 23(8):1962-1975.

(19) Vanderwel, M.C.[P], W.P. Cropper, **J.W. Lichstein**, and F.E. Putz. 2013. Predicting broad-scale carbon loss and recovery in managed tropical forests. *Carbon Management* 4(6):575-577.

(18) Osnas, J.L.D., **J.W. Lichstein**, P.B. Reich, and S.W. Pacala. 2013. Global leaf trait relationships: mass, area, and the leaf economics spectrum. *Science* 340:741-744. [Faculty of 1000 recommended: http://f1000.com/prime/718013252]

(17) Caughlin, T.[G], J.H. Wheeler, J. Jankowski, and **J.W. Lichstein**. 2012. Urbanized landscapes favored by fig-eating birds increase invasive but not native juvenile strangler fig abundance. *Ecology* 93(7):1571-1580.

(16) **Lichstein, J.W.** and S.W. Pacala. 2011. Local diversity in heterogeneous landscapes: quantitative assessment with a height-structured forest metacommunity model. *Theoretical Ecology* 4:269-281.

(15) **Lichstein, J.W.**, J. Dushoff, K. Ogle, A. Chen, D.W. Purves, J.P. Caspersen, and S.W. Pacala. 2010. Unlocking the forest inventory data: relating individual-tree performance to unmeasured environmental factors. *Ecological Applications* 20(3):684-699.

(14) Malizia, A., H.R. Grau, and **J.W. Lichstein**. 2010. Soil phosphorus and disturbances influence liana communities in a subtropical montane forest. *Journal of Vegetation Science* 21:551-560.

(13) Menge, D.N.L., J.L. DeNoyer, and **J.W. Lichstein**. 2010. Phylogenetic constraints do not explain the rarity of nitrogen-fixing trees in late-successional temperate forests. *PLoS ONE* 5(8):e12056 (pp. 1-11).

(12) Chisholm, R.A. and **J.W. Lichstein**. 2009. Linking dispersal, immigration and scale in the neutral theory of biodiversity. *Ecology Letters* 12:1385-1393.

(11) Purves, D.W., **J.W. Lichstein**, N. Strigul, and S.W. Pacala. 2008. Predicting and understanding forest dynamics using a simple, tractable model. *Proceedings of the National Academy of Sciences U.S.A.* 105(44):17018-17022.

(10) Wirth C., **J.W. Lichstein**, J. Dushoff, A. Chen, and F.S. Chapin III. 2008. White spruce meets black spruce: dispersal, postfire establishment, and growth in a warming climate. *Ecological Monographs* 78(4):489-505.

(9) **Lichstein, J.W.**, J. Dushoff, S.A. Levin, and S.W. Pacala. 2007. Intraspecific variation and species coexistence. *American Naturalist* 170(6):807-818.

(8) Purves, D.W., **J.W. Lichstein**, and S.W. Pacala. 2007. Crown plasticity and competition for canopy space: a new spatially implicit model parameterized for 250 North American tree species. *PLoS ONE* 2(9):e870 (pp. 1-11).

(7) **Lichstein, J.W.** 2007. Multiple regression on distance matrices: a multivariate spatial analysis tool. *Plant Ecology* 188(2):117-131.

(6) Jetz, W., C. Rahbek, and **J.W. Lichstein**. 2005. Local and global approaches to spatial data analysis in ecology. *Global Ecology and Biogeography* 14(1): 97-98.

(5) Roy, S.B., P.D. Walsh, and **J.W. Lichstein**. 2005. Can logging in equatorial Africa affect adjacent parks? *Ecology and Society* 10(1):article 6 (pp. 1-11).

(4) **Lichstein, J.W.**, H.R. Grau, and R. Aragón. 2004. Recruitment limitation in secondary forests dominated by an exotic tree. *Journal of Vegetation Science* 15(6):721-728.

(3) **Lichstein, J.W.**, T.R. Simons, and K.E. Franzreb. 2002. Landscape effects on breeding songbird abundance in managed forests. *Ecological Applications* 12(3):836-857.

(2) **Lichstein, J.W.**, T.R. Simons, S.A. Shriner, and K.E. Franzreb. 2002. Spatial autocorrelation and autoregressive models in ecology. *Ecological Monographs* 72(3):445-463.

(1) **Lichstein, J.W.**, M.L. Ballinger, A.R. Blanchette, H.M. Fishman, and G.D. Bittner. 2000. Structural changes at cut ends of earthworm giant axons in the interval between dye barrier formation and neuritic outgrowth. *Journal of Comparative Neurology* 416(2):143-157.

Book chapters and government reports

(4) Dugan, A. J., A. Steele, D. Hollinger, R. Birdsey, **J. Lichstein**. 2018. Assessment of forest sector carbon stocks and mitigation potential for the state forests of Pennsylvania: A report for the Pennsylvania Department of Conservation and Natural Resources. U.S. Department of Agriculture, Forest Service. 76 pages.

(3) Birdsey, R., Y. Pan, M. Janowiak, S. Stewart, S. Hines, L. Parker, S. Gower, **J. Lichstein**, K. McCullogh, F. Zhang, J. Chen, D. Mladenoff, C. Wayson, and C. Swanston. 2014. Past and prospective carbon stocks in forests of northern Wisconsin. General Technical Report NRS-127. U.S. Department of Agriculture, Forest Service, Newtown Square, PA. 52 pages.

(2) **Lichstein, J.W.**, C. Wirth, H.S. Horn, and S.W. Pacala. 2009. Biomass chronosequences of United States forests: implications for carbon storage and forest management. Pages 301-341 in C. Wirth, G. Gleixner, and M. Heimann, eds. *Old-growth forests: function, fate and value*. Ecological Studies vol. 207, Springer-Verlag, Berlin, Heidelberg.

(1) Wirth, C. and **J.W. Lichstein**. 2009. The imprint of succession on old-growth forest carbon balances: insights from a trait-based model of forest dynamics. Pages 81-113 in C. Wirth, G. Gleixner, and M. Heimann, eds. *Old-growth forests: function, fate and value*. Ecological Studies vol. 207, Springer, Berlin, Heidelberg.

TEACHING

Courses taught at University of Florida

Undergraduate

- Field Ecology & Data Analysis (Immersion Course; 4 credit hours): spring 2022, spring 2024
- Field Ecology & Data Analysis (3 credit hours): spring 2021, spring 2023
- General Ecology (4 credit hours): fall 2014, spring 2015, fall 2015, spring 2016, fall 2016, spring 2017, fall 2017, fall 2019, fall 2021, fall 2023
- Global Change Ecology and Sustainability (3 credit hours): spring 2013, spring 2015
- Climate Change Biology (3 credit hours): fall 2011, fall 2012

Graduate

- Principles of Ecosystem Ecology (3 credit hours): spring 2018, fall 2019, fall 2020, fall 2022
- Ecophylogenetics (1 credit hour): fall 2016
- Ecology Seminar (1 credit hour): 2014-17; spring 2020, spring 2023
- IPCC Biogeochemistry (1 credit hour): spring 2014
- Forest Growth Response to Global Change (1 credit hour): fall 2013
- Global Carbon Cycle (1 credit hour): spring 2012

Other teaching

Guest instructor for Principles of Ecosystem Ecology (Dr. Amanda Subalusky), University of Florida, 2021, 2023.

Guest instructor for Plant Diversity (Dr. Stuart McDaniel), University of Florida, 2017.

Guest instructor for Tropical Ecology (Dr. Stephanie Bohlman), University of Florida, 2017.

Guest speaker for Colloquium on Climate Change – Seminar in Herpetology (Drs. Harvey Lillywhite and David Blackburn), University of Florida, 2016.
Guest instructor for Land Biogeochemistry Modeling (Dr. Stefan Gerber), University of Florida, 2014.
Guest instructor for Facets of Sustainability (Dr. Les Thiele), University of Florida, 2012.
Graduate seminar on likelihood statistical methods (eight one-hour sessions; no formal credit hours), Princeton University, 2010.
Ecology and conservation of tropical dry forests (one-week field course in Panama for undergraduates, with Dr. Stephanie Bohlman), Princeton University, 2008.
Graduate Teaching Assistant, Princeton University, Dept. of Ecology and Evolutionary Biology, 2003, 2005.
Guest instructor, Conservation of Neotropical migratory songbirds, Mars Hill College, Dept. of Biology, May 2000.
Workshop on multivariate statistics, North Carolina State University, 1999.
Graduate Teaching Assistant, North Carolina State University, Dept. of Zoology, 1997-1998.

OUTREACH

Invited speaker for Campus Climate Corps, UF online conference, Nov. 3, 2022.
Invited speaker for Climate Change Resiliency Program for high school students, University of Florida Center for Precollegiate Education and Training, July 8, 2020.
Participant in middle-school teacher training workshop: Teachers and Arctic Scientists Collaborative (TASC) Workshop, Whitney Laboratory for Marine Bioscience, St. Augustine, FL, Oct. 18-20, 2019.
Instructor: Intensive landscape-scale measurements of forest carbon for reference sites in the Americas. USDA Forest Service workshop for Latin American researchers, Silas Little Experimental Forest, New Jersey, Sep. 2010.

SERVICE

Service for the profession

Associate Editor for *Oecologia*, 2011-
German Research Foundation (DFG) review panels: 2017, 2019, 2021, 2023
U.S. Dept. of Energy review panel for Oak Ridge National Laboratory, Terrestrial Ecosystem Sciences program, 2015
U.S. Dept. of Energy review panel for Early Career Research Program, 2016
Reviewer for funding agencies: NSF, NOAA, Israeli Ministry of Science Technology and Space, European Research Council, German Research Foundation (DFG)
Reviewer for U.S. National Park Service, Forest Health Monitoring Protocol, 2009
Reviewer for journals: *American Journal of Botany*, *Biodiversity and Conservation*, *Biogeosciences*, *BioScience*, *Diversity and Distributions*, *Ecography*, *Ecological Applications*, *Ecological Monographs*, *Ecology*, *Ecology Letters*, *Ecosystems*, *Functional Ecology*, *Global Ecology and Biogeography*, *Journal of Advances in Modeling Earth Systems*, *Journal of Applied Ecology*, *Journal of Biogeography*, *Journal of Geophysical Research, Journal of Vegetation Science*, *Landscape Ecology*, *Nature*, *Nature Climate Change*, *New Phytologist*, *Oikos*, *PNAS*, *Science Advances*.

Textbook reviews:

- *Climate Change Biology* (Hannah 2010)
- *Ecology: The Economy of Nature, Seventh Edition* (Ricklefs and Relyea 2014)
- *Ecology in Action* (Singer 2016)

Service at University of Florida

Department of Biology:

- Graduate Committee, 2023-
- Personnel Support Committee, 2022-
- Hiring Priorities Committee, 2021
- Public Relations Committee, 2019-23 (Chair 2019-21)
- Faculty Search Committees (3), 2012, 2016, 2017
- Advisory Council, 2014-17
- Strategic Planning Committee, 2014-15
- Recruitment Committee, 2013-16 (Chair 2013-15)
- Big Data / Bioinformatics Working Group, 2013-14
- By-Laws Committee, 2012
- Colloquium Committee, 2011-14 (Chair 2013-14)

College of Liberal Arts and Sciences:

- Bachelor of Arts in Sustainability Studies, Oversight Committee, 2012-16

University:

- Natural Area Advisory Committee, 2021-
- School of Natural Resources and Environment, Faculty Advisory Council, 2021-
- School of Natural Resources and Environment, Graduate Admissions Committee, 2021
- Ewel Postdoctoral Fellow in Tropical and Subtropical Ecology and Environmental Science, Selection Committee, 2020
- Florida Climate Institute, Advisory Committee, 2015-
- UF Biodiversity Institute, Advisory Board, 2015-
- Climate Concentration Steering Committee, 2014-16
- Tropical Conservation and Development, Working Group review panel, 2014

PROFESSIONAL MEMBERSHIPS & AFFILIATONS

Florida Climate Institute, faculty affiliate, 2011-

UF School of Natural Resources & Environment, faculty affiliate, 2011-

Memberships: Ecological Society of America, American Geophysical Union, American Association for the Advancement of Science

INVITED PRESENTATIONS

University of Florida, School of Forestry, Fisheries, and Geomatics Sciences, Oct. 2023. Climate change determines the sign of productivity trends in US forests.

German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany, July 2022. New perspectives on the leaf economics spectrum.

Collaborations in Biodiversity Research Symposium, University of Florida, May 2022. Studying the biodiversity of U.S. forests using the Forest Inventory and Analysis database.

German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany, Sep. 2018. Plant functional diversity and the global carbon cycle.

Helmholtz Centre for Environmental Research, Leipzig, Germany, Sep. 2018. Plant functional diversity and the global carbon cycle.

USDA Agricultural Research Service, Gainesville, FL, April 2018. Forest responses and feedbacks to climate change.

German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany, Oct. 2017. Plant functional diversity: leaves, trees, and the global carbon cycle.

Ecological Society of America annual meeting, Organized Session, Portland, OR, Aug. 2017. Response of forest functional composition and biomass to climate variability: understanding patterns using data and models.

International Botanical Conference, Symposium, Shenzhen, China, July 2017. Ecological traits and recent population dynamics of eastern Asian-eastern North American disjunct tree species in North America.

University of Michigan, Dept. of Ecology and Evolutionary Biology, Sep. 2016. Biodiversity and the changing Earth System: computational challenges and new answers to old questions.

American Geophysical Union fall meeting, Organized Session, San Francisco, CA, December 2015. Competition for light and water increases tree carbon allocation to fine roots and leaves in a next-generation dynamic vegetation model.

U.S. Department of Energy workshop, Plenary Talk, Rockville, MD, November 2015. The origin and consequences of plant functional diversity in dynamic vegetation models.

National Center for Atmospheric Research, Boulder, CO, October 2014. Competitive plant allocation in a prototype GFDL land model.

Ecological Society of Japan, Organized Session, Hiroshima, Japan, March 2014. *Invitation declined due to scheduling conflict.*

University of Florida, Biomath Seminar (Dept. of Mathematics), Nov. 2013. Tree species coexistence in heterogeneous landscapes.

University of Missouri, Division of Biological Sciences, Sep. 2013. Biodiversity and the global carbon cycle.

Ecological Society of America annual meeting, Organized Session, Minneapolis, MN, Aug. 2013. Quantifying the effects of drought and insect outbreaks on tree mortality rates using imperfect data.

National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Feb. 2013. Quantifying the effects of drought and insect outbreaks on tree mortality rates.

Seventh Regional Workshop on Forest Monitoring, Technical America Initiatives, Group on Earth Observation (GEO) Forest Carbon Tracking (FCT), Mérida, México, Jan. 2013. *Invitation declined due to scheduling conflict.*

Smithsonian Tropical Research Institute, Panama, May 2012. Forest dynamics across time and space: scaling from individuals to ecosystems.

Smithsonian Tropical Research Institute, Panama, May 2012. Understanding the worldwide leaf economics spectrum.

National Institute for Mathematical and Biological Synthesis, Knoxville, TN, Feb. 2012. Scaling up ecosystem dynamics and disturbance regimes.
Pennsylvania State University, Depts. of Forest Resources and Horticulture, March 2010. Ecological consequences of forest fragmentation.
Pennsylvania State University, Depts. of Forest Resources and Horticulture, March 2010. Biodiversity and the global carbon cycle.
University of Arizona, School of Natural Resources and the Environment, Feb. 2010. Biodiversity, phenology, and the global carbon cycle.
University of Florida, Dept. of Biology, Feb. 2010. Biodiversity and the global carbon cycle.
University of Maryland, Appalachian Laboratory, Nov. 2008. Forest dynamics: from landscape to global scales.
Tulane University, Dept. of Ecology and Evolutionary Biology, April 2008. Predicting forest dynamics with a simple, tractable model: implications for studying climate-vegetation feedbacks.
University of California, Berkeley, Dept. of Environmental Science, Policy, and Management, Feb. 2008. Predicting forest dynamics with a simple, tractable model: implications for studying climate-vegetation feedbacks.
University of Wyoming, Dept. of Botany, July 2008. Predicting forest dynamics with a simple, tractable model.

CONTRIBUTED PRESENTATIONS

First-authored presentations at national and international conferences

Ecological Society of America, Portland, Oregon, 2023. A model intercomparison project to study the role of plant functional diversity in the response of tropical forests to drought.
Joint Meeting of the Ecological Society of America and the Canadian Society for Ecology and Evolution, Montreal Canada, Aug. 2022. Decomposing leaf mass per area (LMA) into photosynthetic and structural components explains divergent patterns in trait variation within and among species.
European Geosciences Union General Assembly, Vienna, Austria, 2017. Changes in tree functional composition amplify the response of forest biomass to climate variability.
Ecological Society of America, Baltimore, Maryland, 2015. Incorporating plant functional diversity into Earth system models: Plant carbon allocation strategies in light- and water-limited ecosystems.
North American Carbon Program All-Investigators Meeting, Albuquerque, New Mexico, 2013, Model-data fusion bias due to errors in ancillary data. [poster]
Ecological Society of America, Portland, Oregon, 2012. Constraining terrestrial biosphere models with forest inventory data.
North American Carbon Program All-Investigators Meeting, New Orleans, Louisiana, 2011. Confronting terrestrial ecosystem models with forest inventory data. [poster]
Forest Inventory and Analysis Symposium, Park City, Utah, 2008. Temperature sensitivity of forest biomass and productivity: comparing the GFDL-LM3V land model to FIA data.
Ecological Society of America, Memphis, Tennessee, 2006. A resource-based neighborhood competition model of sapling growth.

Ecological Society of America, Portland, Oregon, 2004. Parameterizing sapling growth-light models from forest inventory data.

American and British Ornithologists' Unions, St. John's, Newfoundland, 2000. Autoregressive models of songbird habitat use in managed southern Appalachian forests: landscape effects and spatial autocorrelation.

American and British Ornithologists' Unions, St. John's, Newfoundland, 2000. Comparison of normal, Poisson, and negative binomial regression models for analyzing count data: an example with southern Appalachian songbirds.

Symposium: Predicting species occurrences: issues of scale and accuracy. Snowbird, Utah, 1999. A multi-scale assessment of the effects of landscape composition on breeding birds in southern Appalachian forests. [poster]

North American Ornithological Conference, St. Louis, Missouri, 1998. Patterns of breeding bird diversity and abundance across land use gradients in the southern Appalachians.

NATIONAL & INTERNATIONAL WORKSHOPS

Invited panelist: Perspectives on Forest Modeling. Helmholtz Centre for Environmental Research, Leipzig, Germany, April 2019.

Invited panelist: After the extreme: Measuring and modeling impacts on terrestrial ecosystems when thresholds are exceeded. CLIMMANI/INTERFACE Workshop, Florence, Italy, April 2016.

Invited participant: Ecosystem Demographics in Earth System Models. National Center for Atmospheric Research, Boulder, CO, Jan. 2016. *Invitation declined due to scheduling conflict.*

Invited participant: U.S. Department of Energy, Trait-based methods to represent ecosystem change in land systems and climate models. Rockville, MD, November 2015.

Invited participant: Scaling across space and time: Benefits and challenges of informing large-scale models with small-scale experiments. CLIMMANI/INTERFACE Workshop, Mikulov, Czech Republic, June 2013. *Invitation declined due to scheduling conflict.*

Invited participant: Nonautonomous Systems and Terrestrial Carbon Cycle. National Institute for Mathematical and Biological Synthesis, Knoxville, Tennessee, May 2013. *Invitation declined due to scheduling conflict.*

Invited participant: Synthesizing frontiers in modeling drought- and insect-induced tree mortality with climate change. National Center for Ecological Analysis and Synthesis, Santa Barbara, CA. Feb. 2013 and Aug. 2013.

Invited participant: Disturbance Regimes and Climate-Carbon Feedback. National Institute for Mathematical and Biological Synthesis, Knoxville, Tennessee, Feb. 2012.

Advisory committee: National Forests Climate Change Workshop: A workshop to develop protocols for an assessment of the climate mitigation capacity of National Forests. USDA Forest Service, Washington DC, 2010.

Invited participant: Climate Change Response Framework for Chequamegon-Nicolet National Forest. USDA Forest Service, Madison, Wisconsin, 2010.

Invited participant: Ecophylogenetics Working Group. National Center for Ecological Analysis and Synthesis, Santa Barbara, California, May 2008.

ADVISEES

Postdoctoral Research Associates

Current
Michaela Woods, 2023-

Former
Trevor Caughlin, 2013-14
Cynthia Chang, 2011-12
J. Aaron Hogan, 2022-23
Masatoshi Katabuchi, 2014-16
Jessica Langebrake, 2013-14
Jeanne Osnas, 2013
Karun Pandit, 2020-21
Mark Vanderwel, 2013-14
Elizabeth Webb, 2022-23
Tao Zhang, 2011-18, 2020-21

Graduate Students

Current
Seth Robinson (PhD), 2018-

Former
Justin Gearhart (M.S.), 2017-19
Tongyi Huang (PhD), 2012-19
John Park (PhD), 2015-2020
Elizabeth Webb (PhD), 2018-22

Undergraduate and Post-Baccalaureate Researchers

Current
Joel Saunders, 2022-
Sabrina Scothorn, 2022-

Former
Jada Cordeiro, 2020-22
Katharine LeGros, 2016
Zoey Li, 2014-15
Brandon Peterson, 2013-17
Brendan Regnery, 2014
Sarah Sharkey, 2016-17
Alyssa Towns, 2016-17