

Publications (Past 5 Years)

- J.K. Kreye, J. K. Hiers, J. M. Varner, B. Hornsby, S. Drukker, J. J. O'Brien. Effects of solar heating on the moisture dynamics of forest floor litter in humid environments: composition, structure, and position matter. *Canadian Journal of Forest Research* (In Press).
- H. K. Nowell, C. D. Holmes, K. Robertson, C. Teske, and J.K. Hiers. A new picture of open fire extent, variability, and drought interaction from Florida government records. *Geophysical Research Letters* (In Press)
- M. D. Ulyshen, S. Horn, S. Pokswinski, J. V. McHugh and J. Kevin Hiers. Characterization of coarse woody debris in old-growth longleaf pine forests and neighboring secondary forests in two regions on the southeastern U.S. coastal plain. *Forest Ecology and Management* (In Press)
- J.J. O'Brien, J.K. Hiers, J.M. Varner, C.M. Hoffman, M. B. Dickinson, S.T. Michaletz, and B. W. Butler. Advances in Mechanistic Approaches to Quantifying Biophysical Fire Effects. *Current Forestry Reports* (In Press)
- K. M. Yedinak, E.K. Strand, J. Kevin Hiers, and J. M. Varner. 2018. Embracing Complexity to Advance the Science of Wildland Fire Behavior. *Fire* 1(2), 20; <https://doi.org/10.3390/fire1020020>
- E.D. Johnson, Tova Spector, J. Kevin Hiers, Dan Pearson, J. Morgan Varner, John Bente. 2018. Defining old-growth stand characteristics in fragmented natural landscapes: a case study of old-growth pine in Florida (USA) State Parks, *Natural Areas Journal* 38(1): 88-98.
- J.E. Dell, L.A. Richards, J. J. O'Brien, E. L. Loudermilk, A. T. Hudak, S. M. Pokswinski, B. C. Bright, J. K. Hiers, B. W. Williams, and L. A. Dyer. 2017. Fire, Fuels, and Diversity: Overstory-Derived Surface Fuels Mediate Plant Species Diversity in Frequently Burned Longleaf Pine Forests. *Ecosphere* 10 (8) DOI: 10.1002/ecs2.1964.
- Schwartz, M, J.K. Hiers, F. Davis, G. Garfin, S. T. Jackson, A. Terando, C. Woodhouse, T. L. Morelli, M. Williamson, M. Brunson. 2017. Developing a translational ecology workforce. *Frontiers in Ecology and the Environment* 25(20): 587-596.
- Safford, H., S. Sawyer, S. Kocher, J. K. Hiers. 2017. Linking knowledge to action: the role of boundary spanners in translating ecology. *Frontiers in Ecology and the Environment* 15(10): 560-568.
- Enquist, C. S. T. Jackson, G. Garfin, F. Davis, L. Gerber, J. Littell, J. Tank, A. Terando, T. Wall, B. Halpern, J. K. Hiers, T. L. Morelli, E. McNie, N. L. Stephenson, M. A. Williamson, C. A. Woodhouse, L. Yung, M. Brunson, K. Hall, L. M. Hallett, D. M. Lawson, M. Moritz, K. Nydick, Amber Pairis, A.J. Ray, C. Regan, H. D. Safford, M. W. Schwartz, M. R. Shaw. 2017. Foundations of Translational Ecology. *Frontiers in Ecology and the Environment* 15(10): 541-550.
- Wiggers, M. S., J. K. Hiers, L. K. Kirkman, R. Boyd. 2017. Seed heat tolerance and germination of six legume species native to a fire-prone longleaf pine forest. *Plant Ecology* 218:151-171.
- Hiers, J. K., S. T. Jackson, R. J. Hobbs, E. S. Bernhardt, L. E. Valentine. 2016. The precision problem in conservation and restoration. *Trends in Ecology and Evolution* 31(11):820-830.

- Evans, J. P., C. A. Oldfield, K. Cecala, J. K. Hiers, C. Van De Ven, M. Armistead. 2016. Pattern and drivers of white tailed deer (*Odocoileus virginianus*) herbivory on tree saplings across a plateau landscape. *Forests* 7 (5): 101 DOI:[10.3390/f7050101](https://doi.org/10.3390/f7050101)
- O'Brien, J. J., E. L. Loudermilk, J. K. Hiers, Benjamin Hornsby, Scott Pokswinski, Andrew Hudak, Dexter Strother, Eric Rowell, Benjamin C. Bright. 2016. Canopy derived fuels drive patterns of in-fire energy release and understory plant mortality in a longleaf pine (*Pinus palustris*) sandhill in Northwest FL, USA. *Canadian Journal of Remote Sensing* 42 (5): 1-12
- Loudermilk, E. L., J. K. Hiers, S. Pokswinski, J. J. O'Brien, A. Barnett, R. J. Mitchell. Oaks (*Quercus* spp.) facilitate longleaf pine (*Pinus palustris*) seedling establishment in xeric. *Ecosphere* 7 (6): e01361. [10.1002/ecs2.1361](https://doi.org/10.1002/ecs2.1361)
- Varner, J. M., J. M. Kane, J. K. Hiers, J. K. Kreye, J. W. Veldman. 2016. Suites of fire-adapted traits in the southeastern USA oaks: multiple strategies for persistence. *Fire Ecology* 12 (2): 48-64. DOI: 10.4996/fireecology.1202048
- Carlos A. Silva, Andrew T. Hudak, Lee A. Vierling, E. Louise Loudermilk, Joseph J. O'Brien, J. Kevin Hiers, Steve B. Jack, Carlos Gonzalez-Benecke, Heezin Lee, Michael J. Falkowski & Anahita Khosravipour. 2016. Imputation of Individual Longleaf Pine (*Pinus palustris* Mill.) Tree Attributes from Field and LiDAR Data, *Canadian Journal of Remote Sensing* 42 (5): 13. DOI: 10.1080/07038992.2016.1196582
- Ottmar, R. D., J. K. Hiers, C. B. Clements, B. Butler, M. B. Dickinson, B. Potter, J. J. O'Brien, A. T. Hudak, E. M. Rowell, T. J. Zajkowski. 2016. Measurements, datasets and preliminary results from the RxCADRE project. *International Journal of Wildland Fire* 25(1): 1-9.
- Zajkowski, T. J., M. B. Dickinson, J. K. Hiers, W. Holley, B. W. Williams, A. Paxton, O. Martinez, G. W. Walker. 2016. Evaluation and use of remotely-piloted aircraft systems for operations and research—RxCADRE 2012. *International Journal of Wildland Fire* 25 (1): 114-128 (<http://dx.doi.org/10.1071/WF14176>).
- Clements, C. B., N. P. Lareau, D. Seto, J. Contezac, B. Davis, C. Teske, T. J. Zajkowski, A. T. Hudak, B. C. Bright, M. B. Dickinson, B. W. Butler, D. J., J. K. Hiers. 2016. [Fire weather conditions and fire-atmosphere interactions observed during low-intensity prescribed fires—RxCADRE 2012](#). *International Journal of Wildland Fire* 25 (1): 90-101.
- O'Brien, J. J., E. L. Loudermilk, B. Hornsby, A. T. Hudak, B. C. Bright, M. B. Dickinson, J. K. Hiers, C. Teske, and R. D. Ottmar. 2016. High-resolution infrared thermography for capturing wildland fire behaviour: RxCADRE 2012. *International Journal of Wildland Fire* 25 (1): 62-75.
- Davis, A. Y., R. Ottmar, Y. Liu, S. Goodrick, G. Achtemeier, B. Gullett, J. Aurell, W. Stevens, R. Greenwald, Y. Hu, A. Russell, J. K. Hiers, and M. T. Odman. 2015. Fire emission uncertainties and their effect on smoke dispersion predictions: a case study at Eglin Air Force Base, Florida, USA. *International Journal of Wildland Fire* 24(2) 276-285.
- Addington, R. N., S. J. Hudson, J. K. Hiers, M. D. Hurteau, T. F. Hutcherson, G. Matusick, J. M. Parker. 2015. Reduced wildfire activity due to prescribed fire: Evidence from a fire-prone landscape in the southeastern United States. *International Journal of Wildland Fire* 24(6):778-783 (<http://dx.doi.org/10.1071/WF14187>).

- Starr, G., C. L. Staudhammer, H. W. Loesch, R. Mitchell, A. Whelan, J. K. Hiers, J. J. O'Brien. 2015. Time series analysis of forest carbon dynamics: recovery of *Pinus palustris* physiology following a prescribed fire. *New Forests* 46:63-90.
- Loudermilk, E. L., G. L. Achtemeier, J. J. O'Brien, J. K. Hiers, and B.S. Hornsby. 2014. High-resolution observations of combustion in heterogeneous surface fuels. *International Journal of Wildland Fire* 23(7) 1016-1026.
- Mitchell, R. J., Y. Liu, J. J. O'Brien, K. J. Elliott, G. Starr, C. F. Miniati, J. K. Hiers. 2014. Future climate and fire interaction in the southeastern region of the United States. *Forest Ecology and Management* 327:316-326.
- Lavoie, M., M. C. Mack, J. K. Hiers, S. Pokswinski, A. Barnett, and L. Provencher. 2014. Effects of Restoration Techniques on Soil Carbon and Nitrogen Dynamics in Florida Longleaf Pine (*Pinus palustris*) Sandhill. *Forests* 5:498-517.
- Hiers, J. K., J. R. Walters, R. J. Mitchell, J. M. Varner, L. M. Conner, L. A. Blanc, J. Stowe. 2014. Ecological Value of Retaining Pyrophytic Oaks in Longleaf Pine Ecosystems. *The Journal of Wildlife Management* 78(3):383-393.
- Kreye, J. K., J. M. Varner, J. K. Hiers, J. Mola. 2013. Towards a mechanism for eastern North American forest mesophication. *Ecological Applications* 23 (8):1776-1986.