

VITA OF SETH HOWARD PETERSON

June 2015

EDUCATION

Bachelor of Science in Physical Geography, University of California, Santa Barbara, June 1996

Master of Arts in Geography, San Diego State University, August 2000

Doctor of Philosophy in Geography, University of California, Santa Barbara, June 2011

PROFESSIONAL EMPLOYMENT

1995-1996: Undergraduate Researcher, Department of Geography, University of California, Santa Barbara

1997-2000: Research Assistant, Department of Geography, San Diego State University

2002-2006: Teaching Assistant, Department of Geography, University of California, Santa Barbara

2002-2011: Graduate Student Researcher, Department of Geography, University of California, Santa Barbara

2006: Contractor, the Nature Conservancy

Summer 2006: Contractor, US Department of Energy Special Technologies Lab

2011-2014: Assistant Specialist III, Department of Geography, University of California, Santa Barbara

2014-2015: Associate Specialist I, Department of Geography, University of California, Santa Barbara

PUBLICATIONS

- Roth, K.L., Roberts, D.A., Dennison, P.E., Alonzo, M., Peterson, S.H., Beland, M. (2015). Differentiating plant species within and across diverse ecosystems with imaging spectroscopy. *Remote Sensing of Environment*, in Press.
- Peterson, S.H., Roberts, D.A., Beland, M., Kokaly, R.F., Ustin, S.L. (2015). Oil detection in the coastal marshes of Louisiana using MESMA applied to band subsets of AVIRIS data. *Remote Sensing of Environment*, 159: 222-231.
- Baguskas, S.A., Peterson, S.H., Bookhagen, B., Still, C.J. (2014). Evaluating spatial patterns of drought-induced tree mortality in a coastal California pine forest. *Forest Ecology and Management* 315: 43-53.
- Kokaly, R.F., Couvillion, B.R., Holloway, J.M., Roberts, D.A., Ustin, S.L., Peterson, S.H., Khana, S., Piazza, S.C. (2013). Spectroscopic remote sensing of the distribution and persistence of oil from the Deepwater Horizon spill in Barataria Bay marshes. *Remote Sensing of Environment*, 129, 210-230.
- Peterson, S.H., Franklin, J., Roberts, D.A., van Wagtenonk, J.W. (2012). Mapping fuels in Yosemite National Park. *Canadian Journal of Forest Research* 43:7-17.

- Duncan, B.W., Weishampel J.F., & Peterson, S.H. (2011). Simulating a natural fire regime on an Atlantic coast barrier island complex in Florida, USA. *Ecological Modelling*, 222, 1639-1650.
- Peterson, S.H., Moritz, M.A., Morais, M.E., Dennison, P.E., & Carlson, J.M. (2011). Modeling long-term fire regimes of southern California shrublands, *International Journal of Wildland Fire*, 20, 1-16.
- Peterson, S.H., Morais, M.E., Carlson, J.M., Dennison, P.E., Roberts, D.A., Moritz, M.A., & Weise, D.R. (2009). Using HFire for spatial modeling of fire in shrublands, Research Paper PSW-RP-256, USDA Forest Service, Pacific Southwest Research Station.
- Peterson, S.H., Roberts, D.A., & Dennison, P.E. (2008). Mapping live fuel moisture with MODIS data: a multiple regression approach. *Remote Sensing of Environment*, 112, 4272-4284.
- Dennison, P.E., D.A. Roberts, & Peterson, S.H. (2007). Spectral shape-based temporal compositing algorithms for MODIS surface reflectance data. *Remote Sensing of Environment*, 109, 510-522.
- Roberts, D.A., Dennison, P.E., Peterson, S.H., Sweeney, S., & Rechel, J. (2006). Evaluation of AVIRIS and MODIS measures of live fuel moisture and fuel condition in a shrubland ecosystem in southern California. *JGR-Biosciences*, 111, G04S02
- Dennison, P.E., Charoensiri, K., Roberts, D.A., Peterson, S.H., & Green, R.O. (2006). Wildfire temperature and land cover modeling using hyperspectral data. *Remote Sensing of Environment*, 100, 212-222.
- Peterson, S.H., Goldstein, N.C., Clark, M.L., Halligan, K.Q., Schneider, P., Dennison, P.E., & Roberts, D.A. (2005). Sensitivity Analysis of the 2003 Simi Wildfire Event. *Proceedings, Geocomputation 2005*, Ann Arbor, Michigan, August 1-3, 2005.
- Dennison, P.E., Roberts D.A., Peterson, S.H., & Rechel J. (2005). Use of normalized difference water index for monitoring live fuel moisture. *International Journal of Remote Sensing*, 26, 1035-1042.
- Peterson, S.H., & Stow, D.A. (2003). Using multiple image endmember spectral mixture analysis to study chaparral regrowth in southern California. *International Journal of Remote Sensing*, 24, 4481-4504.
- Coulter, L., Stow, D., O'Leary, J., Hope, A., Longmire, P., & Peterson, S. (2000). Comparison of High Spatial Resolution Imagery for Efficient Generation of GIS Vegetation Layers, *Photogrammetric Engineering & Remote Sensing*, 66, 1329-1335.

FIELDS OF STUDY

Remote Sensing, Fire, Vegetation Modeling