

Citations from work performed on Santa Rita Experimental Range: 1951*-present.

* This bibliography adds some citations between 1951-1988 that were not included in the bibliography in Medina, A.L. 1996. The Santa Rita Experimental Range: history and annotated bibliography (1903-1988). General Technical Report RM-GTR-276. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. (<https://cals.arizona.edu/srer/history/>).

Citation Count since 1902: Total = 883, including 452 in Medina 1996, and 431 in this list

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In Press

2023

- Archer, S.R., Naito, A.T., Heilman, P., Vivoni, E.R., and Scott, R.L. 2023. *Prosopis velutina* response to aerial herbicide application. *Rangeland Ecology and Management*. 88: 129-134. <https://doi.org/10.1016/j.rama.2023.02.014>
- Christensen, Erica M., James, Darren K., Randall, Robb M., and Bestelmeyer, Brandon T.. 2023. Abrupt Transitions in a Southwest USA Desert Grassland Related to the Pacific Decadal Oscillation. *Ecology* 104(7): e4065. <https://doi.org/10.1002/ecy.4065>
- Dannenbergh, M. P., Barnes, M. L., Smith, W. K., Johnston, M. R., Meerdink, S. K., Wang, X., Scott, R. L., and Biederman, J. A. 2023. Upscaling dryland carbon and water fluxes with artificial neural networks of optical, thermal, and microwave satellite remote sensing, *Biogeosciences*, 20, 383–404. doi:10.5194/bg-20-383-2023.
- Javadian, M, Scott, RL, Biederman, JA, Zhang, F., Fisher, JB, Reed, SC, Potts, DL, Villarrea, ML, Feldman, AF, and Smith, WK. 2023. Thermography captures the differential sensitivity of dryland functional types to changes in rainfall event timing and magnitude. *New Phytologist* <https://doi.org/10.1111/nph.19127>
- Kibler, C.L., Trugman, A.T., Roberts, D.A., Still, C.J., Scott, R.L., Caylor, K.K., Stella, J.C., and Singer, M.B. 2023. Evapotranspiration regulates leaf temperature and respiration in dryland vegetation. *Agricultural and Forest Meteorology* 339, 109560. <https://doi:10.1016/j.agrformet.2023.109560>
- Liptzin, D. others, M.P. McClaran, and others. 2023. An evaluation of nitrogen indicators for soil health in long-term agricultural experiments. *Soil Science Society of America Journal* 1–17. <https://doi.org/10.1002/saj2.20558>
- McBride, S.G., E.M. Levi, J.A. Nelson, S.R. Archer, P.W. Barnes, H.L. Throop, K. Predick, R.L. McCulley 2023. Soil-litter mixing mediates drivers of dryland decomposition along a continuum of biotic and abiotic factors. *Ecosystems* 26:1349–1366. <https://doi:10.1007/s10021-023-00837-1>
- Ponce-Campos, G.E., McClaran, M., Heilman, P. and Gillan, J.K. (2023) UAV and Satellite-Based Sensing to Map Ecological States at the Landscape Scale. *Open Journal of Ecology*, 13: 560-596. <https://doi.org/10.4236/oje.2023.138035>

- Scott, R.L., M.R. Johnston, J.F. Knowles, N. MacBean, K. Mahmud, M.C. Roby, and M.P. Dannenberg. 2023. Interannual variability of spring and summer monsoon growing season carbon exchange at a semiarid savann over nearly two decades. *Agricultural and Forest Meteorology* 339: 109584 <https://doi.org/10.1016/j.agrformet.2023.109584>
- Zhang, F., Biederman, J.A., Devine, C.J., Pierce, N.A., Yan, D. Javadian, Potts, D.L. and Smith, W.K. 2023. Using high frequency digital repeat photography to quantify the sensitivity of a semi-arid grassland ecosystem to the temporal repackaging of precipitation. *Agricultural and Forest Meteorology* 338: 109539. <https://doi.org/10.1016/j.agrformet.2023.109539>

2022

- Bagnall, D.K. others, M.P. McClaran, and others. 2022. Carbon-sensitive pedotransfer functions for plant available water. *Soil Science Society of America Journal* 86:612-629. <https://doi.org/10.1002/saj2.20395>
- Bagnall, D.K., others, M.P. McClaran, and others. 2022. Selecting soil hydraulic properties as indicators of soil health: Measurement responses to management and site characteristics. *Soil Science Society of America Journal* 85 (5):1206-1226. <https://doi.org/10.1002/saj2.20428>
- Bisch-Knaden, S., Rafter, M.A, Knaden, M. and Hansson, B.S. 2022. Unique neural coding of crucial versus irrelevant plant odors in a hawkmoth. *eLife* 2022;11:e77429. <https://doi.org/10.7554/eLife.77429>
- Dannenberg, M.P., Yan, D., Barnes, M.L., Smith, W.K., Johnston, M.R., Scott, R.L., Biederman, J.A., Knowles, J.F., Wang, X., Duman, T., Litvak, M.E., Kimball, J.S., Williams, A.P., and Zhang, Y. 2022. Exceptional heat and atmospheric dryness amplified losses of primary production during the 2020 U.S. Southwest hot drought. *Global Change Biology*, 28, 4794-4806. doi:10.1111/gcb.16214
- Davis, A.R., K. Hultine, O.E. Sala, and H.L. Throop. 2022. Seedling responses to soil moisture amount versus pulse frequency in a successfully encroaching semi-arid shrub. *Oecologia* 199:441-451. doi:10.1007/s00442-022-05193-w
- George K; Lopez-Mateos D; Abd El-Aziz, TM; Xiao Y; Kline J; Bao H; Raza S; Stockand JD; Cummins TR; Fornelli L; Rowe MP; Yarov-Yarovoy V; and Rowe AH. 2022. Structural and functional characterization of a novel scorpion toxin that inhibits Na V 1.8 via interactions with the DI voltage sensor and DII pore module. *Front. Pharmacol.* 13:846992. <http://doi:10.3389/fphar.2022.846992>
- Maestre FT, others, H.L. Throop, and others. 2022. Grazing and ecosystem service delivery in global drylands. *Science* 378:915-920. DOI: 10.1126/science.abq4062
- Meikle WG, Colin T, Adamczyk JJ, Weiss M, Barron AB. 2022. Traces of a neonicotinoid pesticide stimulate different honey bee colony activities, but do not increase colony size or longevity. *Ecotoxicology and Environmental Safety* 231: 113202. doi:10.1016/j.ecoenv.2022.113202
- Norton, C.L.; Hartfield, K.; Collins, C.D.H.; van Leeuwen, W.J.D.; Metz, L.J. 2022. Multi-Temporal LiDAR and Hyperspectral Data Fusion for Classification of Semi-Arid Woody Cover Species. *Remote Sensing* 14, 2896. <https://doi.org/10.3390/>
- Nota, G., N. Anselmetto, A. Gorlier and M.P. McClaran. 2022. Differences in population size structures drive grass response to long-term livestock removal. *Applied Vegetation Science*. 2022;25:e12696. <https://doi.org/10.1111/avsc.12696>

- Rieke, E.L. others, McClaran, M.P. and others. 2022. Linking microbial community structure to potential carbon mineralization: A continental scale assessment. *Soil Biology and Biochemistry* 168: 108618. <https://doi.org/10.1016/j.soilbio.2022.108618>
- Rieke, E.L. others, M.P. McClaran, others. 2022. Evaluation of Aggregate Stability Methods for Soil Health. *Geoderma* 428: 116156. <https://doi.org/10.1016/j.geoderma.2022.116156>
- Rutherford, W.A., Archer, S.R. 2022. Trait responses of a grassland shrub invader to altered moisture regimes. *Plant and Soil*. <https://doi.org/10.1007/s11104-022-05678-w>
- Roby, M.C., Scott, R.L., Biederman, J.A., Smith, W.K., and Moore, D.J.P. 2022. Response of soil carbon dioxide efflux to temporal repackaging of rainfall into fewer, larger events in a semiarid grassland. *Frontiers in Environmental Science* 10, 940943. doi:10.3389/fenvs.2022.940943
- Vivoni, E.R., Perez-Ruiz, E.R., Scott, R.L., Naito, A.T., Archer, S.A., Biederman, J.A., and Templeton, N.P. 2022. A micrometeorological flux perspective on brush management in a shrub-encroached Sonoran Desert Grassland. *Agricultural and Forest Meteorology* 313 (2022) 108763. <https://doi.org/10.1016/j.agrformet.2021.108763>
- Young, A. M., Friedl, M. A., Novick, K., Scott, R. L., Moon, M., Frohling, S., Li, X., Carrillo, C. M., and Richardson, A. D. 2022. Disentangling the relative drivers of seasonal evapotranspiration across a continental-scale aridity gradient. *Journal of Geophysical Research: Biogeosciences*, 127, e2022JG006916. doi:10.1029/2022JG006916
- Wang, X., Biederman, J.A., Knowles, J.F., Scott, R.L., Turner, A.J., Dannenberg, M.P., Köhler, P., Frankenberg, C., Litvak, M.E., Flerchinger, G.N., Law, B.E., Kwon, H., Reed, S.C., Parton, W.J., Barron-Gafford, G.A., and Smith, W.K., 2022. Satellite solar-induced chlorophyll fluorescence and near-infrared reflectance capture complementary aspects of dryland vegetation productivity dynamics. *Remote Sensing of Environment*, 270, 112858. doi:10.1016/j.rse.2021.112858
- Zhang, Fangyue; Biederman, Joel A.; Pierce, Nathan A.; Potts, Daniel L.; Devine, Charles John, Hao, Yanbin; Smith, William K. 2022. Precipitation temporal repackaging into fewer, larger storms delayed seasonal timing of peak photosynthesis in a semi-arid grassland. *Functional Ecology* 36, 3: 646-658. <https://doi.org/10.1111/1365-2435.13980>
- Zhang, X., Xie, Z., Ma, Z., Barron-Gafford, G. A., Scott, R. L., and Niu, G.-Y. 2022. A microbial-explicit soil organic carbon decomposition model (MESDM): Development and testing at a semiarid grassland site. *Journal of Advances in Modeling Earth Systems*, 14, e2021MS002485. doi:10.1029/2021MS002485

2021

- Abd El-Aziz, T.M.; Xiao, Y. ;Kline, J.; Gridley, H.; Heaston, A.; Linse, K.D.; Ward, M.J.; Rokyta, D.R. Stockand, J.D.; Cummins, T.R.; Fornelli, L.; and Rowe, A.H. 2021. Identification and characterization of novel proteins from Arizona bark scorpion venom that inhibit Nav1.8, a voltage-gated sodium channel regulator of pain signaling. *Toxins* 2021,13, 501. <https://doi.org/10.3390/toxins13070501>
- Barnes, M.L., Farella, M.M., Scott, R.L., Moore, D.J.P., Ponce-Campos, G.E., Biederman, J.A., MacBean, N., Litvak, M.E., and Breshears, D.D. 2021. Improved dryland carbon flux predictions with explicit consideration of water-carbon coupling. *Communications Earth Environment*, 2, 1–9. doi:10.1038/s43247-021-00308-2

- Brooks, Rachel J., Tolleson, Douglas R., Ruyle, George B., and Faulkner, Don. 2021. A production-scale evaluation of nutritional monitoring and decision support software for free-ranging cattle in an arid environment. *The Rangeland Journal*. 43, 35-46. <https://doi.org/10.1071/RJ20116>
- Browning, D.M., Russell, E.S., Ponce-Campos, G.E., Kaplan, N., Richardson, A.D., Seyednasrollah, B., Spiegel, S., Saliendra, N., Alfieri, J.G., Baker, J., Bernacchi, C., Bestelmeyer, B.T., Bosch, D., Boughton, E.H., Boughton, R.K., Clark, P., Flerchinger, G., Gomez-Casanovas, N., Goslee, S., Haddad, N.M., Hoover, D., Jaradat, A., Mauritz, M., McCarty, G.W., Miller, G.R., Sadler, J., Saha, A., Scott, R.L., Suyker, A., Tweedie, C., Wood, J.D., Zhang, X., and Taylor, S.D., 2021. Monitoring agroecosystem productivity and phenology at a national scale: A metric assessment framework. *Ecological Indicators*, 131, 108147. doi:10.1016/j.ecolind.2021.108147
- Chu, H., et al. 2021. Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. *Agricultural and Forest Meteorology* 301–302: 108350. doi: 10.1016/j.agrformet.2021.108350
- Gillan, J.K., G.E. Ponce-Campos, T.L. Swetnam, A. Gorlier, P. Heilman, and M.P. McClaran. 2021. Innovations to expand drone data collection and analysis for rangeland monitoring. *Ecosphere* 12(7):e03649. <https://dx.doi.org/10.1002/ecs2.3649>
- Gornish, E.S., H. Ganjurjav, M. Liang, J.L. Simonis, and M.P. McClaran. 2021. Identifying restoration opportunities beneath native mesquite canopies. *Restoration Ecology* 29(2) e13334. <https://onlinelibrary.wiley.com/doi/full/10.1111/rec.13334>
- MacBean, N., Scott, R.L., Biederman, J.A., Peylin, P., Kolb, T., Litvak, M.E., Krishnan, P., Meyers, T.P., Arora, V.K., Bastrikov, V., Goll, D., Lombardozzi, D.L., Nabel, J.E.M.S., Pongratz, J., Sitch, S., Walker, A.P., Zaehle, S., and Moore, D.J.P. 2021. Dynamic global vegetation models underestimate net CO₂ flux mean and inter-annual variability in dryland ecosystems. *Environmental Research Letters*, 16, 094023. doi:/10.1088/1748-9326/ac1a38
- Mahmud, K., Scott, R.L., Biederman, J.A., Litvak, M.E., Kolb, T., Meyers, T.P., Krishnan, P., Bastrikov, V., and MacBean, N. 2021. Optimizing Carbon Cycle Parameters Drastically Improves Terrestrial Biosphere Model Underestimates of Dryland Mean Net CO₂ Flux and its Inter-Annual Variability. *Journal of Geophysical Research: Biogeosciences* 126, e2021JG006400. doi:10.1029/2021jg006400
- McIntyre, C., S. R. Archer, K. I. Predick, and J. Belnap. 2021. Biocrusts do not differentially influence emergence and early establishment of native and non-native grasses. *Ecosphere* 12(12):e03841. 10.1002/ecs2.3841
- Meikle WG, Adamczyk JJ, Weiss M, Ross J, Werle C, Beren E. 2021. Sublethal concentrations of clothianidin affect honey bee colony performance and growth. *Scientific Reports* 11: 4364. doi:10.1038/s41598-021-83958-8
- Throop, H.L., S. Munson, N. Hornslein, and M.P. McClaran. 2021. Shrub influence on soil carbon and nitrogen in a semi-arid grassland is mediated by precipitation and largely insensitive to livestock grazing. *Arid Land Research and Management*. <https://doi.org/10.1080/15324982.2021.1952660>

- Vivoni, E.R., Perez-Ruiz, E.R., Keller, Z.T., Escoto, E.A., Templeton, R.C., Templeton, N.P., Anderson, C.A., Schreiner-McGraw, A.P., Mendez-Barroso, L.A., Robles-Morua, A., Scott, R.L., Archer, S.R., and Peters, D.P.C. 2021. Long-term research catchments to investigate shrub encroachment in the Sonoran and Chihuahuan deserts: Santa Rita and Jornada experimental ranges. *Hydrological Processes*. 2021;35:e14031. <https://doi.org/10.1002/hyp.14031>
- Young, A.M., Friedl, M.A., Seyednasrollah, B., Beamesderfer, E., Carrillo, C.M., Li, X., Moon, M., Arain, M.A., Baldocchi, D.D., Blanken, P.D., Bohrer, G., Burns, S.P., Chu, H., Desai, A.R., Griffis, T.J., Hollinger, D.Y., Litvak, M.E., Novick, K., Scott, R.L., Suyker, A.E., Verfaillie, J., Wood, J.D., and Richardson, A.D., 2021. Seasonality in aerodynamic resistance across a range of North American ecosystems. *Agricultural and Forest Meteorology*, 310, 108613. doi:10.1016/j.agrformet.2021.108613
- Zhang, Fangyue; Biederman, Joel A.; Dannenberg, Matthew P.; Yan, Dong; Reed, Sasha C.; Smith, William K. 2021. Five Decades of Observed Daily Precipitation Reveal Longer and More Variable Drought Events Across Much of the Western United States. *Geophysical Research Letters* 48, 7, e2020GL092293. <https://doi.org/10.1029/2020GL092293>

2020

- Bond-Lamberty, B. et al. 2020. COSORE: A community database for continuous soil respiration and other soil-atmosphere greenhouse gas flux data. *Global Change Biology*, 26, 7268-7283. doi:10.1111/gcb.15353
- Burnett, A.D. and Koprowski, J.L. 2020. Ultimate causes of antipredator vocalizations in a nonhibernating squirrel. *Animal Behaviour* 168: 225–230. <https://doi.org/10.1016/j.anbehav.2020.08.016>
- Farella, M. M., Breshears, D. D., & Gallery, R. E. 2020. Predicting drivers of collective soil function with woody plant encroachment in complex landscapes. *Journal of Geophysical Research: Biogeosciences*, 125(12), e2020JG005838. doi: 10.1029/2020JG005838
- Kariuki, S., Gallery, RE, Sparks, JP, Gimblett, R. and McClaran, MP. 2020. Soil microbial activity is resistant to recreational camping disturbance in a *Prosopis* dominated semiarid savanna. *Applied Soil Ecology* 147: 103424. <https://doi.org/10.1016/j.apsoil.2019.103424>
- Levi, E.M., S.R. Archer, H.L. Throop, and C. Rasmussen. 2020. Soil-litter mixing promotes decomposition and soil aggregate formation on contrasting geomorphic surfaces in a shrub-invaded Sonoran Desert grassland. *Plant and Soil* 450(1-2). doi:10.1007/s11104-020-04508-1
- Li, X., Xiao, J., Kimball, J.S., Reichle, R.H., Scott, R.L., Litvak, M.E., Bohrer, G., and Frankenberg, C., 2020. Synergistic use of SMAP and OCO-2 data in assessing the responses of ecosystem productivity to the 2018 U.S. drought. *Remote Sensing of Environment* 251, 112062. doi: 10.1016/j.rse.2020.112062
- Liang, M., Feng, X., Gornish, E. 2020. Rainfall pulses mediate long-term plant community compositional dynamics in a semi-arid rangeland. *Journal of Applied Ecology*. <https://doi.org/10.1111/1365-2664.13780>
- Marx, H. E., Scheidt, S., Barker, M. S., and Dlugosch, K. M.. 2020. TagSeq for gene expression in non-model plants: A pilot study at the Santa Rita Experimental Range NEON core site. *Applications in Plant Sciences*. 8(11): e11398. <https://doi.org/10.1002/aps3.11398>

- MacBean, N., Scott, R.L., Biederman, J.A., Otlé, C., Vuichard, N., Ducharne, A., Kolb, T., Dore, S., Litvak, M., Moore, D.J.P., 2020. Testing water fluxes and storage from two hydrology configurations within the ORCHIDEE land surface model across US semi-arid sites. *Hydrology and Earth System Sciences*, 24, 5203–5230. doi:10.5194/hess-24-5203-2020
- Nelson, J.A., Pérez-Priego, O., Zhou, S., Poyatos, R., Zhang, Y., Blanken, P.D., Gimeno, T.E., Wohlfahrt, G., Desai, A.R., Gioli, B., Limousin, J.-M., Bonal, D., Paul-Limoges, E., Scott, R.L., Varlagin, A., Fuchs, K., Montagnani, L., Wolf, S., Delpierre, N., Berveiller, D., Gharun, M., Belelli Marchesini, L., Gianelle, D., Šigut, L., Mammarella, I., Siebicke, L., Andrew Black, T., Knohl, A., Hörtnagl, L., Magliulo, V., Besnard, S., Weber, U., Carvalhais, N., Migliavacca, M., Reichstein, M. and Jung, M. 2020. Ecosystem transpiration and evaporation: Insights from three water flux partitioning methods across FLUXNET sites. *Global Change Biology*, 26, 6916-6930. <https://doi.org/10.1111/gcb.15314>
- Nierman, C.N., Tate, T.G., Suto, A.L., Barajas, R., White, H.A., Guswiler, O.D., Secor, S.M., Rowe, A.H., and Rowe, M.P. 2020. Defensive venoms: Is pain sufficient for predator deterrence? *Toxins* 12: 260. <http://dx.doi.org/10.3390/toxins12040260>
- Noelle, S., Lyons, T., Gorlier, A., McClaran, M.P., Nichols, M., and Rulye, G. 2020. How long before a second defoliation of actively growing grass plants in the Desert Grassland? *Frontiers in Veterinary Science*, section Animal Behavior and Welfare. 7, article 600734. <https://doi.org/10.3389/fvets.2020.600734>
- Norris, C.E., Mac Bean, G., Cappellazzi, S.B. Cope, M., Grueb, K.L.H., Liptzin, D., Rieke, E.I., Tracy, P.W., Morgan, C.L.S., and Honeycut, C.W. 2020. Introducing the North American project to evaluate soil health measurements. *Agronomy Journal*. doi: 10.1002/agj2.20234
- Pastorello, G., et al. 2020. The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. *Scientific Data* 7(1): p. 225. <https://www.nature.com/articles/s41597-020-0534-3>
- Roby, M.C., Scott, R.L. and Moore, D.J., 2020. High Vapor Pressure Deficit Decreases the Productivity and Water Use Efficiency of Rain-Induced Pulses in Semiarid Ecosystems. *Journal of Geophysical Research: Biogeosciences*, 125(10), p.e2020JG005665. <https://doi.org.ezproxy2.library.arizona.edu/10.1029/2020JG005665>
- Throop, H.L., S.A. Archer, and M.P. McClaran. 2020. Soil organic carbon in drylands: shrub encroachment and vegetation management effects dwarf those of livestock grazing. *Bull Ecol Soc Am* 101(3):e01727. <https://doi.org/10.1002/bes2.1727>
- Throop, H.L., S.A. Archer, and M.P. McClaran. 2020. Soil organic carbon in drylands: shrub encroachment and vegetation management effects dwarf those of livestock grazing. *Ecological Applications*. 30(7), 2020, e02150. <http://dx.doi.org/10.1002/eap.2150>

2019

- Burnett, A.D. 2019. The behavior and spatial ecology of the Harris' antelope ground squirrel (*Ammospermophilus harrisi*). MS Thesis. School of Natural Resources and the Environment, University of Arizona, Tucson, AZ.
- Colin T, Meikle WG, Paten AM, Barron AB. 2019. Long-term dynamics of honey bee colonies following exposure to chemical stress. *Science of the Total Environment* 667:660-670. doi:10.1016/j.scitotenv.2019.04.402

- Gillan, J., McClaran, M.P., Swetnam, T., and Heilman, P. 2019. Estimating forage utilization with drone-based photogrammetric point clouds. *Rangeland Ecology and Management* 72: 575-585.
- Leo, A. B. 2019. Land disturbance influences seed-microbe associations in a semi-arid ecosystem: microbial recruitment and student engagement. MS Thesis. School of Plant Sciences, University of Arizona, Tucson.
- Meikle WG, Corby-Harris V, Carroll MJ, Weiss M, Snyder LA, Meador CAD, Beren E, Brown N. 2019. Exposure to sublethal concentrations of methoxyfenozide disrupts honey bee colony activity and thermoregulation *PLoS ONE* 14(3): e0204635. doi:10.1371/journal.pone.0204635
- Nichols, M.H., and Polyakov, V.O. 2019. The impacts of porous rock check dams on a semiarid alluvial fan. *Science of the Total Environment*. 664:576-582. doi.org/10.1016/j.scitotenv.2019.01.429
- Potts, D.L., Barron-Gafford, G.A. and Scott, R.L. 2019. Ecosystem hydrologic and metabolic flashiness are shaped by plant community traits and precipitation. *Agricultural and Forest Meteorology*, 279, 1-8. doi: 10.1016/j.agrformet.2019.107674
- Roby, M.C., Scott, R.L., Barron-Gafford, G.A., Hamerlynck, E.P. and Moore, D.J., 2019. Environmental and vegetative controls on soil CO₂ efflux in three semiarid ecosystems. *Soil Systems*, 3(1), p.6. <https://doi.org/10.3390/soilsystems3010006>
- Scott, R.L. and Biederman, J.A. 2019. Critical zone water balance over thirteen years in a semiarid savanna. *Water Resources Research*, 55. doi: 10.1029/2018WR023477
- Smith, W.K., Dannenberg, M.P., Yan, D., Herrmann, S., Barnes, M.L., Barron-Gafford, G.A., Biederman, J.A., Ferrenberg, S., Fox, A.M., Hudson, A. Knowles, J.F., MacBean, N., Moore, D.J.P., Nagler P.L., Reed, S.C., Rutherford, W.A., Scott, R.L., Wang, X., and Yang, J. (2019) Remote sensing of dryland ecosystem structure and function: Progress, challenges, and opportunities. *Remote Sensing of Environment* 233, 111401.
- Szutu, D.J. and Papuga, S.A. 2019. Year-round transpiration dynamics with deep soil moisture in a warm desert shrubland. *Water Resources Research*, 55. <https://doi.org/10.1029/2018WR023990>
- Throop, H.L. and Belknap, J. 2019. Connectivity dynamics in dryland litter cycles: moving decomposition beyond spatial scales. *Bioscience* 69 (8): 602-614.
- Yan, D., Scott, R.L, Moore, D.J.P., Biederman, J.A., and Smith, W.K. 2019. Understanding the relationship between vegetation greenness and productivity across dryland ecosystems through the integration of PhenoCam, satellite, and eddy covariance data. *Remote Sensing of Environment* 223: 50-62. doi: 10.1016/j.rse.2018.12.029

2018

- Barba, J., Cueva, A., Bahn, M., Barron-Gafford, G.A., Bond-Lamberty, B., Hanson, P.J., Jaimes, A., Kulmala, L., Pumpanen, J., Scott, R.L., Wohlfahrt, G. and Vargas, R. 2018. Comparing ecosystem and soil respiration: Review and key challenges of tower-based and soil measurements. *Agricultural and Forest Meteorology* 249:434-443. doi: 10.1016/j.agrformet.2017.10.028

- Biederman, J.A., Scott, R.L., Arnone III, J.A., Jasoni, R.L., Litvak, M.E., Moreo, M.T., Papuga, S.A., Ponce-Campos, G.E., Schreiner-McGraw, A.P. and Vivoni, E.R. 2018. Shrubland carbon sink depends upon winter water availability in the warm deserts of North America. *Agricultural and Forest Meteorology* 249:407-419. doi: 10.1016/j.agrformet.2017.11.005
- Biederman, J.A., Scott, R.L., Bell, T.W., Bowling, D.R., Dore, S., Garatuza-Payan, J., Kolb, T. E., Krishnan, P., Krofcheck, D.J., Litvak, M.E., Maurer, G.E., Meyers, T.P., Oechel, W.C., Papuga, S.A., Ponce-Campos, G.E., Rodriguez, J.C., Smith, W.K., Vargas, R., Watts, C.J., Yopez, E.A. and Goulden, M.L. 2018. CO₂ exchange and evapotranspiration across dryland ecosystems of southwestern North America. *Global Change Biology* 23:4204-4221. doi: 10.1111/gcb.13686
- Fu, C., Wang, G., Bible, K., Goulden, M.L., Saleska, S.R., Scott, R.L. and Cardon, Z.G. 2018. Hydraulic redistribution affects modeled carbon cycling via soil microbial activity and suppressed fire. *Global Change Biology*. 24:3472-3485. doi: 10.1111/gcb.14164
- Huang, C., S.A. Archer, M.P. McClaran, and S.E. Marsh. 2018. Shrub encroachment into grasslands: end of an era? *PeerJ* 6:e5474. doi: 10.7717/peerj.5474
- Lee, E., Kumar, P., Barron-Gafford, G.A., Hendryx, S.M., Sanchez-Cañete, E.P., Minor, R.L., Colella, T. and Scott, R.L. 2018. Impact of hydraulic redistribution on multispecies vegetation water use in a semiarid savanna ecosystem: an experimental and modeling synthesis. *Water Resources Research*, 54, 4009-4027. doi: 10.1029/2017WR021006
- Meikle WG, Holst N, Colin T, Weiss M, Carroll MJ, McFrederick QS, et al. 2018. Using within-day hive weight changes to measure environmental effects on honey bee colonies. *PLoS ONE* 13(5): e0197589. <https://doi.org/10.1371/journal.pone.0197589>
- McCall, AC, Richman, S, Thomson, E., Edgerton, M., Jordan, S., and Bronstein, JL. 2018. Do honey bees act as pollen thieves or pollinators of *Datura wrightii*? *Journal of Pollination Ecology*, 24(18): 164-171.
- Mitchell, R.F., Ray, A.M., Hanks, L.M. and Millar, J.G. 2018. The Common Natural Products (S)- α -Terpineol and (E)-2-Hexenol are Important Pheromone Components of *Megacyllene antennata* (Coleoptera: Cerambycidae). *Environmental Entomology*, nvy126. <https://doi.org/10.1093/ee/nvy126>
- Nielsen, M. E., Levin, E., Davidowitz, G., & Papaj, D. R. 2018. Colour plasticity alters thermoregulatory behaviour in *Battus philenor* caterpillars by modifying the cue received. *Animal Behaviour*, 140, 93-98
- Novick, K.A., Biederman, J.A., Desai, A.R., Litvak, M.E., Moore, D.J.P., Scott, R.L. and Torn, M.S. 2018. The AmeriFlux network: A coalition of the willing. *Agricultural and Forest Meteorology* 249:444-456. doi: 10.1016/j.agrformet.2017.10.009
- Smith, G.P., C., Johnson, C.A., Davidowitz, G., and Bronstein, J.L. 2018. Linkages between nectaring and oviposition preferences of *Manduca sexta* on two co-blooming *Datura* species in the Sonoran Desert. *Ecological Entomology* 43: 85-92.
- Smith, W.K., Biederman, J.A., Scott, R.L., Moore, D.J.P., He, M. Kimball, J.S., Yan, D., Hudson, A., Barnes, M.L., MacBean, N., Fox, A.M., Litvak, M.E. 2018. Chlorophyll fluorescence better captures seasonal and interannual gross primary productivity dynamics across dryland ecosystems of southwestern North America. *Geophysical Research Letters* 45. doi: 10.1002/2017GL075922

- Swetnam, T.L., Gillan, J.K., Sankey, T.T., McClaran, M.P., Nichols, M., Heilman, P. and McVay, J. 2018. Considerations for achieving cross-platform point cloud data fusion across different dryland ecosystem structural states. *Frontiers in Plant Science*. doi: 10.3389/fpls.2017.02144
- Yule, K.M. and Bronstein, J.L. 2018. Reproductive ecology of a parasitic plant differs by host species: vector interactions and the maintenance of host races. *Oecologia* 186:471-482.
- Zhang, Q., Phillips, R.P., Manzoni, S., Scott, R.L., Oishi, A.C., Finzi, A., Daly, E., Vargas, R. and Novick, K.A. 2018. Changes in photosynthesis and soil moisture drive the seasonal soil respiration-temperature hysteresis relationship. *Agricultural and Forest Meteorology* 259:184-195. doi:10.1016/j.agrformet.2018.05.005

2017

- Bagchi, S., Singh, N.J., Briske, D.D., Bestelmeyer, B.T., McClaran, M.P. and Murthy, K. 2017. Quantifying long-term plant community dynamics with movement models: implications for ecological resilience. *Ecological Applications* 27:1514-1528.
- Barron-Gafford, G.A., Sanchez-Cañete, E.P., Minor, R.L., Hendryx, S.M., Lee, E., Sutter, L.F., Tran, N., Parra, E., Colella, T., Murphy, P.C., Hamerlynck, E.P., Kumar, P. and Scott, R.L. 2017. Impacts of hydraulic redistribution on grass–tree competition vs facilitation in a semi-arid savanna. *New Phytologist* 215:1451-1461.
- Biederman, J.A., Scott, R.L., Arnone III, J.A., Jasoni, R.L., Litvak, M.E., Moreo, M.T., Papuga, S.A., Ponce-Campos, G.E., Schreiner-McGraw, A.P. and Vivoni, E.R. 2017. Shrubland carbon sink depends upon winter water availability in the warm deserts of North America. *Agricultural and Forest Meteorology*.
- Bogan, M.T. 2017. Hurry up and wait: life cycle and distribution of an intermittent stream specialist (*Mesocapnia arizonensis*). *Freshwater Science* 36:805-815.
- Jones, L.A., Kimball, J.S., Reichle, R.H., Madani, N., Glassy, J., Ardizzone, J.V., Ardizzone, J.V., Colliander, A., Cleverly, J., Desai, A.R., Eamus, D., Euskirchen, E.S., Hutley, L., Macfarlane, C. and Scott, R.L. 2017. The SMAP Level 4 Carbon Product for Monitoring Ecosystem Land-Atmosphere CO₂ Exchange. *IEEE Transactions on Geoscience and Remote Sensing* 55:6517-6532. doi: 10.1109/TGRS.2017.2729343
- Knipper, K.R., Hogue, T.S., Franz, K.J. and Scott, R.L. 2017. Downscaling SMAP and SMOS soil moisture with moderate-resolution imaging spectroradiometer visible and infrared products over southern Arizona. *Journal of Applied Remote Sensing* 11:1-18. doi: 10.1117/1.JRS.11.026021
- Knipper, K.R., Hogue, T.S., Scott, R.L. and Franz, K.J. 2017. Evapotranspiration estimates derived using multi-platform remote sensing in a semiarid region. *Remote Sensing* 9:184. doi: 10.3390/rs9030184
- Nielsen, M. 2017. No geographic variation in thermoregulatory colour plasticity and limited variation in heat-avoidance behaviour in *Battus philenor* caterpillars. *Journal of Evolutionary Biology* 30:1919-1928.
- Nielsen, M, and D. Papaj. 2017. Why have multiple plastic responses? Interactions between color change and thermoregulatory behavior in *Battus philenor* larvae. *American Naturalist* 189: 657-666.

- Sánchez-Cañete, E.P., Scott, R.L., Haren, J. and Barron-Gafford, G.A. 2017. Improving the accuracy of the gradient method for determining soil carbon dioxide efflux. *Journal of Geophysical Research: Biogeosciences* 122:50-64.
- Sanchez-Mejia, Z.M., and Papuga, S.A. 2017. Empirical modeling of planetary boundary layer dynamics under multiple precipitation scenarios using a two-layer soil moisture approach: An example from a semiarid shrubland. *Water Resources Research* 53. <https://doi.org/10.1002/2016WR020275>
- Scott, R.L. Biderman, J.A. 2017. Partitioning evapotranspiration using long-term carbon dioxide and water vapor fluxes, *Geophys. Res. Lett.*, 44, 6833-6840.
- Stephenson, M.B., Bailey, D.W., Bruegger, R.A. and Howery, L.D. 2017. Factors affecting the efficacy of low-stress herding and supplement placement to target cattle grazing locations. *Rangeland Ecology and Management* 70: 202-209.
- Yule, K.M. and Bronstein, J.L. 2018. Infrapopulation size and mate availability influence reproductive success of a parasitic plant. *Journal of Ecology* 2018;1–11. doi: 10.1111/1365-2745.12946
- Wang, Z., Schaaf, C.B., Sun, Q., Kim, J., Erb, A.M., Gao, F., Roman, M.O., Yang, Y., Petroy, S., Taylor, J.R., Masek, J.G., Morisetter, J.T., Zhang, X., and Papuga, S.A. 2017. Monitoring land surface albedo and vegetation dynamics using high spatial and temporal resolution synthetic time series from LANDSAT and the MODIS BRDF/NBAR/albedo product. *International Journal of Applied Earth Observation and Geoinformation* 59:104-117.

2016

- Anderson, C.A., and Vivoni, E.R. 2016. Impact of land surface states within the flux footprint on daytime land-atmosphere coupling in two semiarid ecosystems of the southwestern U.S. *Water Resources Research*. 52: 4785-4800.
- Biederman, J.A., Scott, R.L., Goulden, M.L., Vargas, R., Litvak, M.E., Kolb, T.E., Yezpe, E.A., Oechel, W.C., Blanken, P.D., Bell, T.W., Garatuza-Payan, J., Maurer, G.E., Dore, S. and Burns, S.P. 2016. Terrestrial carbon balance in a drier world: the effects of water availability in southwestern North America. *Global Change Biology* 22:1867-1879. doi: 10.1111/gcb.13222
- Bruegger, R.A., Varelas, L.A., Howery, L.D., Torell, L.A., Stephenson, M.B., and Bailey, D.W. 2016. Targeted grazing in southern Arizona: using cattle to reduce fine fuels loads. *Rangeland Ecology and Management* 69:43-51.
- Chu, C., Kleinhesselink, A., Havstad, K., McClaran, M., Peters, D., Vermeire, L., Wei, H. and Adler, P. 2016. Direct effects dominate responses to climate perturbations in grassland plant communities. *Nature Communications* 7:11766. doi: 10.1038/ncomms11766
- DeMarco, J., Filley, T., and Throop, H.L. 2016. Patterns of woody plant-derived soil carbon losses and persistence after brush management in a semi-arid grassland. *Plant and Soil*. 10.1007/s11104-016-2880-7.
- Deviche, P., Bittner, S., Davies, S., Valle, S., Gao, S. and Carpentier, E. 2016. Endocrine, metabolic and behavioral effects of and recovery from acute stress in a free-ranging bird. *General and Comparative Endocrinology* 234:95-102.

- Deviche, P., Valle, S., Gao, S., Davies, S., Bittner, S., and Carpentier, E. 2016. The seasonal glucorticoid response of male Rufus-winged Sparrows to acute stress correlates with changes in plasma uric acid, but neither glucose nor testosterone. *General and Comparative Endocrinology* 235:78-88.
- Fu, C., Wang, G., Goulden, M.L., Scott, R.L., Bible, K. and G. Cardon, Z. 2016. Combined measurement and modeling of the hydrological impact of hydraulic redistribution using CLM4.5 at eight AmeriFlux sites. *Hydrology and Earth System Science* 20:2001-2018.
- Mascaro, G., and Vivoni, E.R. 2016. On the observed hysteresis in field-scale soil moisture variability and its physical controls. *Environmental Research Letters*. 11(8): 084008.
- Meikle W.G, Adamczyk J.J, Weiss M, Gregorc A, Johnson D.R, Stewart, S.D., Zawislak, J., Carroll, M.J., Lorenz, G.M. 2016. Sublethal effects of Imidacloprid on honey bee colony growth and activity at three sites in the U.S.. *PLOS ONE* 11(12): e0168603. doi: 10.1371/journal.pone.0168603
- Meikle, W.G., Weiss, M., and Stillwell, A.R. 2016. Monitoring colony phenology using within-day variability in continuous weight and temperature of honey bee hives. *Apidologie* 47:1-14.
- Munson, S.M., Sankey, T.T., Xian, G., Villarreal, M.L. and Homer, C.G. 2016. Decadal shifts in grass and woody plant cover are driven by prolonged drying and modified by topo-edaphic properties. *Ecological Applications* 26: 2478-2492.
- Nichols, M.H., Polyakov, V.O., Nearing, M.A., and Hernandez, M. 2016. Semiarid watershed response to low-tech porous rock check dams. *Soil Science* 181:275-282.
- Novick, K.A., Ficklin, D.L., Stoy, P.C., Williams, C.A., Bohrer, G., Oishi, A.C., Papuga, S.A., Blanken, P.D., Noormets, A., Sulman, B.N, Scott, R.L., Wang, L. and Phillips, R.P. 2016. The increasing importance of atmospheric demand for ecosystem water and carbon fluxes. *Nature Climate Change*. doi: 10.1038/NCLIMATE3114
- Schreiner-McGraw, A.P., Vivoni, E.R., Mascaro, G., and Franz, T.E. 2016. Closing the water balance with cosmic-ray soil moisture measurements and assessing their relation with evapotranspiration in two semiarid watersheds. *Hydrology and Earth System Sciences*. 20: 329-345.
- Shen, W., Jenerette, G.D., Hui, D. and Scott, R.L. 2016. Precipitation legacy effects on dryland ecosystem carbon fluxes: direction, magnitude and biogeochemical carryovers. *Biogeosciences*, 13, 425-439. doi: 10.5194/bg-13-425-2016
- Villarreal, M.L., Norman, L.M., Buckley, S., Wallace, S.C.A. and Coe, M.E. 2016. Multi-index time-series of drought and fire effects on desert grasslands. *Remote Sensing and the Environment* 183:186-197.
- Williamson, J.C., Bestelmeyer, B.T., McClaran, M.P., Robinett, D., Briske, D.D., Wu, X.B., and Fernandez-Gimenez, M. 2016. Can ecological land classification increase the utility of vegetation monitoring data? *Ecological Indicators* 69:657-666.
- Wolf, S., Keenan, T.F., Fisher, J.B., Baldocchi, D.D., Desai, A.R., Richardson, A.D., Scott, R.L., Law, B.E., Litvak, M.E., Brunsell, N.A., Peters, W. and van der Laan-Luijkx, I.T. 2016. Warm spring reduced carbon cycle impact of the 2012 US summer drought. *Proceedings of the National Academy of Sciences*. Early View. doi: 10.1073/pnas.1519620113.
- Yule KM, Koop JAH, Alexandre NM, Johnston LR, and Whiteman NK. 2016. Population structure of a vector-borne plant parasite. *Molecular Ecology*. doi: 10.1111/mec.13693

2015

- Barnes, P.W., Throop, H.L., Archer, S.R., Breshears, D.D., McCulley, R.L., and Tobler, M.A. 2015. Sunlight and soil litter mixing: Drivers of litter decomposition in drylands. *Progress in Botany* 76: 273-302.
- Brown, D.E., Babb, R., and Johnson, R.R. 2015. Charles Taylor Vorhies (1879-1949): Arizona's premier nongame biologist. *Journal of the Arizona-Nevada Academy of Science* 46(1):18-23.
- Glenn, E.P., Scott, R.L., Nguyen, U. and Nagler, P.L. 2015. Wide-area ratios of evapotranspiration to precipitation in monsoon-dependent semiarid vegetation communities. *Journal of Arid Environments* 117: 84-95.
- Gremer, J.R., Bradford, J.B., Munson, S.M. and Duniway, M.C. 2015. Desert grassland responses to climate and soil moisture suggest divergent vulnerabilities across the southwestern United States. *Global Change Biology*, 21: 4049–4062.
- Humphrey, R.R. 2015. The desert grassland, past and present. *Fire Ecology* 11(2):5-11.
- McClaran, M.P. 2015. Introduction to Robert R. Humphrey's article. *Fire Ecology* 11(2):1-4.
- Nielsen, M. and Papaj, D. 2015. The effects of developmental change in body size on ectotherm body temperature and thermoregulation: caterpillars in a heat-stressed environment. *Oecologia* 177:171-179.
- Rivera, M., Donaldson-Matasci, M., and Dornhaus, A. 2015. Quitting time: When do honey bee foragers decide to stop foraging on natural resources? *Frontiers in Ecology and Evolution* 3, 50. <http://journal.frontiersin.org/article/10.3389/fevo.2015.00050>
- Sala, O.E., Gherardi, L.A., and Peters, D.P.C. 2015. Enhanced precipitation variability effects on water losses and ecosystem functioning: differential responses of arid and mesic regions. *Climatic Change* 131: 213-227.
- Scott, R.L., Biederman, J.A., Hamerlynck, E.P. and Barron-Gafford, G.A. 2015. The carbon balance pivot point of southwestern U.S. semiarid ecosystems: Insights from the 21st century drought. *Journal of Geophysical Research: Biogeosciences*, 120, 2612-2624. doi: 10.1002/2015JG003181
- Shepard, R.M. 2015. Tree rings in velvet mesquite (*Prosopis velutina* Woot.): an exploratory study of wood anatomy, crossdating, climate-growth relationships, life history, and above-ground biomass. MS Thesis, School of Natural Resources and the Environment, University of Arizona, Tucson. 224 pages.

2014

- Barron-Gafford, G.A., Cable, J.M., Bentley, L.P., Scott, R.L., Huxman, T.E., Jenerette, G.D. and Ogle, K. 2014. Quantifying the timescales over which exogenous and endogenous conditions affect soil respiration. *New Phytologist* 202:442-454.
- Browning, D.M., Franklin, J., Archer, S.R., Gillan, J.K., and Guertin, D.P. 2014. Spatial patterns of grassland-shrubland state transitions: a 74 year record on grazed and protected areas. *Ecological Applications* 24: 1421-1433.
- Chu, C., Havstad, K.M., Kaplan, N., Lauenroth, W.K., McClaran, M.P., Peters, D.P., Vermeire, L.T., and Adler, P.B. 2014. Life form influences survivorship patterns for 109 herbaceous perennials from six semi-arid ecosystems. *Journal of Vegetation Science* 25:947-954.

- Deviche, P., Beouche-Helias, B., Davies, S., Gao, S., Lane, S. and Valle, S. 2014. Regulations of plasma testosterone, corticosterone, and metabolites in response to stress, reproductive stage, and social challenges in a desert male songbird. *General and Comparative Endocrinology* 203:120-131.
- Donaldson-Matasci M. and Dornhaus, A. 2014. Dance communication affects consistency, but not breadth, of resource use in pollen-foraging honey bees. *PLoS ONE* 9(10): e107527. doi:10.1371/journal.pone.0107527
- Fehmi, J.S., Niu, G.-Y., Scott, R.L. and Mathias, A. 2014. Evaluating the effect of rainfall variability on vegetation establishment in a semidesert grassland. *Environmental Monitoring and Assessment* 186:394-406.
- Hamerlynck, E.P., Scott, R.L., Cavanaugh, M.L., and Barron-Gafford, G.A. 2014. Water use efficiency of annual- and bunchgrass-dominated savanna intercanopy space. *Ecohydrology* 7: 1208-1215.
- McClaran, M.P. and Wei, H. 2014. Recent drought phase in a 73-year record at two spatial scales: Implications for livestock production on rangelands in the Southwestern United States. *Agricultural and Forest Meteorology* 197:40-51.
- Merino-Martín, L., Field, J.P., Villegas, J.C., Whicker, J.J., Breshears, D.D., Law, D.J., and Urgeghe, A.M. 2014. Aeolian sediment and dust fluxes during predominant “background wind conditions for unburned and burned semiarid grassland: Interplay between particle size and temporal scale. *Aeolian Research* 14:97-103.
- Perlinski, A.T., Paige, G, and McClaran, M.P. 2014. Evaluating a state-and-transition model using a long-term dataset. *Rangeland Ecology and Management*. 67:173-182.
- Pierini, N.A., Vivoni, E.R., Robles-Morua, A., Scott, R.L., and Nearing, M.A. 2014. Using observations and a distributed hydrologic model to explore runoff threshold processes linked with mesquite encroachment in the Sonoran Desert. *Water Resources Research*. 50: 8191-8215.
- Polyakov, V.O., Nichols, M.H., McClaran, M.P., Nearing, M.A. 2014. Effect of check dams on runoff, sediment yield and retention on small semi-arid watersheds. *Journal of Soil and Water Conservation*.69: 414-421.
- Resco, V., J.F. Weltzin, J.F., Sun, W., Huxman, T.E., and Williams, D.G. 2014. Transitions from grassland to savanna under drought via passive facilitation. *Journal of Vegetation Science* 25:937-946.
- Riffell, J.A., Shilzerman, E., Sanders, E., Abrell, L., Medina, B., Hinterwirth, A.J., and Kutz, J.N. 2014. Flower discrimination by pollinators in a dynamic chemical environment. *Science* 344: 1515-1518.
- Sanchez-Mejia, Z.M. and Papuga, S.A. 2014. Observations of a two-layer soil moisture influence on surface energy dynamics and planetary boundary layer characteristics in a semiarid shrubland. *Water Resources Research* 50: 306–317.
- Sanchez-Mejia, Z.M., Papuga, S.A., Swetish, J.B., van Leeuwen, W.J.D., Szutu, D. and Hartfield, K. 2014. Quantifying the influence of deep soil moisture on ecosystem albedo: The role of vegetation, *Water Resources Research* 50: 4038-4053.
- Vivoni, E.R., Rango, A., Anderson, C.A., Pierini, N.A., Schreiner-McGraw, A., Saripalli, S., and Laliberte, A.S. 2014. Ecohydrology with unmanned aerial vehicles. *Ecosphere* 5(10): art130.

2013

- Bogan, M.T., O.Gutiérrez, A. Alvarado, and D.A. Lytle. 2013. Habitat type and permanence determine local aquatic invertebrate community structure in the Madrean Sky Islands. Pages 277-282 in: G.J. Gottfried, P.F. Folliott, B.S. Gebow, L.G. Eskew, and L.C. Collins, editors. Merging science and management in a rapidly changing world: biodiversity and management of the Madrean Archipelago III. Proceedings RMRS-P-67. Fort Collins, CO: USDA Forest Service.
- Barron-Gafford, G. A., Scott, R. L., Jenerette, G. D., Hamerlynck, E. P., Huxman, T. E. 2013. Landscape and environmental controls over leaf and ecosystem carbon dioxide fluxes under woody plant expansion. *Journal of Ecology*, 101: 1471–1483.
- Castro, C.D. 2013. Vocal behavior in black-throated sparrows, *Amphispiza bilineata*. MS Thesis. Department of Biology, California State University Fullerton.
- Contreras, H.L., Goyret, J., von Arx, M., Pierce, C.T., Bronstein, J.L., Raguso, R.A., Davidowitz, G. 2013. The effect of ambient humidity on the foraging behavior of the hawkmoth *Manduca sexta*. *Journal of Comparative Physiology- A* 199:1053-1063.
- Donaldson-Matasci, M.C., DeGrandi-Hoffman, Dornhaus, A. 2013. Bigger is better: honey bee colonies as distributed information-gathering systems. *Animal Behaviour* 85: 585-592.
- Fehmi, J.S., Niu, G.-Y., Scott, R.L. and Mathias, A. 2013. Evaluating the effect of rainfall variability on vegetation establishment in a semidesert grassland. *Environmental Monitoring and Assessment*, DOI 10.1007/s10661-013-3384-z.
- McClaran, M.P., McMurtry, C.R., and Archer, S.R. 2013. A tool for estimating impacts of woody encroachment in arid grasslands: allometric equations for biomass, carbon and nitrogen content in *Prosopis velutina*. *Journal of Arid Environments* 88:39-42.
- McNamee, C. 2013. Soil Phytolith Assemblages of the American Southwest: The Use of Historical Ecology in Taphonomic Studies. PhD Dissertation, Department of Archaeology, University of Calgary. Calgary, Alberta, Canada.
- Morris, C., Morris, L.R., Leffler, A.J., Holifield Collins, C.D., Forman, A.D., Weltz, M.A., and Kitchen, S.G. 2012. Using long-term datasets to study exotic plant invasions on rangelands in the western United States. *Journal of Arid Environments* 95: 65-74.
- Munson, S. M. 2013. Plant responses, climate pivot points, and trade-offs in water-limited ecosystems. *Ecosphere* 4(9):109. <http://dx.doi.org/10.1890/ES13-00132.1>
- Ponce Campos, G.E., Moran, M.S., Huete, A., Zhang, Y., Bresloff, C., Huxman, T.E., Eamus, D., Bosh, D.D., Buda, A.R, Gunter, S.A., Scalley, T.H., Kitchen, S.G., McClaran, M.P., McNab, W.H., Montoya, D.S., Morgan, J.A., Peters, D.P.C., Sadler, E.J., Seyfried, M.S. and Starks, P.J. 2013. Ecosystem resilience despite large-scale altered hydroclimatic condition. *Nature* 494: 349-352.
- Rowe, A.H., Xiao, Y., owe, M.P., Cummins, T.R. and Zakon, H.H. 2013. Voltage-gated sodium channel in grasshopper mice defends against bark scorpion toxin. *Science* 342:441-446.
- Sankey, J.B., Law, D.J., Breshears, D.D., Munson, S.M. and Webb, R.H. 2013. Employing LiDAR to details vegetation canopy architecture for prediction of aeolian transport. *Geophysical Research Letters* 40: 1724-1728.
- Zhang, Y., Moran, M.S., Nearing, M.A., Ponce Campos, G.E., Huete, A.R., Buda, A.R., Bosch, D.D., Gunter, S.A., Kitchen, S.G., McNab, W.H., Morgan, J.A., McClaran, M.P., Montoya, D.S., Peters, D.P.C., and Starks. P.J. 2013. Extreme precipitation patterns reduced terrestrial ecosystem production across biomes. *Journal of Geophysical Research- Biogeosciences* 118: 1-10.

2012

- Anderson, J., McClaran, M.P., and Adler, P.B. 2012. Cover and density of semi-desert grassland plants in permanent quadrats mapped from 1915 to 1947. *Ecology* 93:1492.
- Bagchi, A., Briske, D.D. Wu, X.B., McClaran, M.P., Bestelmeyer, B.T., and Fernandez-Gimenez, M.E. 2012. Empirical assessment of state-and-transition models with a long-term vegetation record from the Sonoran Desert. *Ecological Applications* 22:400-411.
- Bruegger, R. 2012. Use of targeted grazing in Arizona to accomplish rangeland management goals and herder observations of indicators and causal factors influencing rangeland change in Mongolia [thesis]. Tucson (AZ), USA: The University of Arizona. 117pp.
- Burba, G., Schmidt, A., Scott, R.L., Nakai, T., Kathilankal, J., Fratini, G., Hanson, C., Law, B., McDermitt, D.K., Eckles, R., Furtaw, M., and Velgersdyk, M. 2012. Calculating CO₂ and H₂O eddy covariance fluxes from an enclosed gas analyzer using an instantaneous mixing ratio. *Global Change Biology* 18:385-399.
- Dalke, A. 2012. Native and introduced grasses have different response to livestock, mesquite and soil texture. MS Thesis, School of Natural Resources and the Environment, University of Arizona, Tucson.
- Deviche, P., Gao, S., Davies, S., Sharp, P.J., and Dawson, A. 2012. Rapid stress-induced inhibition of plasma testosterone in free-ranging male rufus-winged sparrows, *Peucaea carpalis*: characterization, time course, and recovery. *General and Comparative Endocrinology* 177:1-8.
- Donaldson-Matasci, M.C. and Dornhaus, A. 2012. How habitat affects the benefits of communication in collectively foraging honey bees. *Behavioral Ecology & Sociobiology* 66: 583-592.
- Field, J.P., Breshears, D.D., Whicker, J.J. and Zou, C.B. 2012. Sediment capture by vegetation patches: implications for desertification and increased resource distribution. *Journal of Geophysical Research - Biogeosciences* 117, G01033. doi:10.1029/2011JG001663
- Franz, T.E, Zreda, M., Ferre, T.P.A., Rosolem, R., Zweck, C., Stillman, S., Zeng, X. and Shuttleworth, W.J. 2012. Measurement depth of the cosmic-ray soil moisture probe affected by hydrogen from various sources. *Water Resources Research* 48 doi:10.1029/2012WR011871
- Franz, T.E, Zreda, M., Rosolem, R., and Ferre, T.P.A., 2012. Field validation of cosmic-ray soil moisture probe using a distributed sensor network. *Vadose Zone Journal* 11 (4): doi: 10.2136/vzj2012.0046
- Franz, T.E, Zreda, M., Rosolem, R. and Ferre, T.P.A. 2012. A universal calibration function for determination of soil moisture with cosmic-ray neutrons. *Hydrology and Earth System Sciences Discussions* 9:10303-10322, doi:10.5194/hessd-9-10303-2012
- Hamerlynck, E.P., Scott, R.L., Barron-Gafford, G.A., Cavanaugh, M.L., Susan Moran, M., and Huxman, T.E. 2012. Cool-season whole-plant gas exchange of exotic and native semiarid bunchgrasses. *Plant Ecology* 213:1229-1239.
- McClaran, M.P. 2012. Santa Rita Experimental Range Long Term Transect Database. In: Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. (eds.): *Vegetation databases for the 21st century*. *Biodiversity & Ecology* 4: 435-435. doi: 10.7809/b-e.00222

- Miguelena, J.G. and Baker, P.B. 2012. Foraging populations of the tube building termites, *Gnathamitermes perplexus* (Banks), associated with termiticide experiments in southern Arizona (Isoptera: Termitidae). *Sociobiology* 59:641-652.
- Munson, S.M., Webb, R.H., Belnap, J., Hubbard, J.A., Swann, D.E., and Rutman, S. 2012. Forecasting climate change impacts to plant community composition in the Sonoran Desert region. *Global Change Biology* 18:1083-1095.
- Resco de Dios, V., Goulden, M.L., Ogle, K., Richardson, A.D., Hollinger, D.Y., Davidson, E.A., Alday, J.G., Barron-Gafford, G.A., Carrara, A., Kowalski, A.S., Oechel, W.C., Reverter, B.R., Scott, R.L., Varner, R.K., Díaz-Sierra, R., and Moreno, J.M. 2012. Endogenous circadian regulation of carbon dioxide exchange in terrestrial ecosystems. *Global Change Biology* 18:1956-1970.
- Resco de Dios, V., Weltzin, J.F., Sun, W., Huxman, T.E., and Williams. 2012. Windows of opportunity for *Prosopis velutina* seedling establishment and encroachment in a semiarid grassland. *Perspectives in Plant Ecology, Evolution and Systematics* 14:275-282.
- Schwalm, C.R., Williams, C.A., Schaefer, K., Baldocchi, D., Black, T.A., Goldstein, A.H., Law, B.E., Oechel, W.C., Paw U, K.T., and Scott, R.L. 2012. Reduction in carbon uptake during turn of the century drought in western North America. *Nature Geosciences*, 5:551-556.
- Scott, R.L., Serrano-Ortiz, P., Domingo, F., Hamerlynck, E.P., and Kowalski, A.S. 2012. Commonalities of carbon dioxide exchange in semiarid regions with monsoon and Mediterranean climates. *Journal of Arid Environments* 84:71-79.
- Throop, H.L., Archer, S.R., Monger, H.C., and Waltman, S.W. 2012. When bulk density methods matter: Implications for estimating soil organic carbon pools in rocky soils. *Journal of Arid Environments* 77:66-71.
- Wilcox, B.P., Turnbull, L., Young, M.H., Williams, C.J., Ravi, S., Seyfried, M.S., Bowling, D.R., Scott, R.L., Germino, M.J., Caldwell, T.G., and Wainwright, J. 2012. Invasion of shrublands by exotic grasses: ecohydrological consequences in cold versus warm deserts. *Ecohydrology* 5:160-173.
- Zreda, M., Shuttleworth, W.J., Zeng, X., Zweck, C., Desilets, D., Franz, T. and Rosolem, R. 2012. COSMOS: The COsmic-ray soil moisture observing system. *Hydrology and Earth System Science* 16:4079-4099.

2011

- Barron-Gafford, G.A., Scott, R.L., Jenerette G.D., Huxman, T.E. 2011. The relative controls of temperature, soil moisture, and plant functional group on soil CO₂ efflux at diel, seasonal, and annual scales. *Journal of Geophysical Research-Biogeosciences* 116, G01023. doi:10.1029/2010JG001442
- Browning, D.M. and Archer, S.R. 2011. Protection from livestock fails to deter shrub proliferation in a desert landscape with a history of heavy grazing. *Ecological Applications* 21:1629-1642.
- Cavanaugh, M.L., Kurc, S.A., and Scott, R.L. 2011. Evapotranspiration partitioning in semiarid shrubland ecosystems: a two-site evaluation of soil moisture control on transpiration. *Ecohydrology* 4:671-681.
- Davison, J.E., Breshears, D.D., van Leeuwen, W.J.D. and Casady, G.M. 2011. Remotely sensed vegetation phenology and productivity along a climatic gradient: on the value of incorporating the dimension of woody plant cover". *Global Ecology and Biogeography* 20:101-113.

- Field, J.P., Breshears, D.D., Whicker, J.J., and Zou, C.B. 2011. Interactive effects of grazing and burning on wind- and water-driven sediment fluxes: Implications for rangeland management. *Ecological Applications* 21:22-32.
- Field, J. P., Breshears, D.D., Whicker, J.J., and Zou, C.B. 2011. Conserving soil under global-change-type extreme events: On the ratio of wind-to-water-driven sediment fluxes. *Journal of Soil and Water Conservation*, 66(2): 51A-56A.
- Hamerlynck, E.P., Scott, R.L., Moran, S.M., Schwander, A., Connor, E., and Huxman, T. 2011. Inter- and under-canopy soil water, leaf-level and whole-plant gas exchange dynamics of a semi-arid perennial C4 grass. *Oecologia* 165:17-29.
- Hamerlynck, E.P., Scott, R.L. and Stone, J.J. 2011, Soil moisture and ecosystem function responses of desert grassland varying in vegetative cover to a saturating precipitation pulse. *Ecohydrology*. doi: 10.1002/eco.214
- McDonald, C.J. and McPherson, G.R. 2011. Absence of a grass/fire cycle in semiarid grassland: response to prescribed fire and grazing. *Rangeland Ecology and Management* 64:384-393.
- Rowe, A.H., Xiao, Y., Scales, J., Linse, K.D., Rowe, M.P., Cummins, T.R., and Zakon, H.H. 2011. Isolation and characterization of CvIV4: a pain inducing α - scorpion toxin. *PLoS ONE* 6(8):e23520.
- Villarreal, M.L., L. M. Norman, L.M., Wallace, C.S.A., and van Riper III, C. 2011. A Multi-temporal (1979-2009) Land Use/Land Cover Data Set of the Binational Santa Cruz Watershed, U.S. US Geological Survey OFR 2011- 1131. <http://pubs.usgs.gov/of/2011/1131/>
- Zhang, Y.G., Nearing, M.A., Liu, B.Y., Van Pelt, R.S., Stone, J.J., Wei, H., and Scott, R.L. 2011. Comparative rates of wind versus water erosion from a small semiarid watershed in southern Arizona, USA. *Aeolian Research* 3:197-204.

2010

- Alarcon, R., Riffell, J.A., Davidowitz, G., Hildebrand, J.G., Bronstein, J.L. 2010. Sex-dependent variation in the floral preferences of the hawkmoth *Manduca sexta*. *Animal Behaviour* 80:289-296.
- Craine, J. M., Fierer, N., and McLauchlan, K. K. 2010. Widespread coupling between the rate and temperature sensitivity of organic matter decay. *Nature Geoscience* 3:854-857.
- Deviche, P., Hurley, L.L., Fokidis, H.B., Lerbour, B., Silverin, B., Silverin, B., Sabo, J., and Sharp, P.J. 2010. Acute stress rapidly decreases plasma testosterone in a free-ranging male songbird: potential site of action and mechanism. *General and Comparative Endocrinology* 169:82-90.
- Hamerlynck, E.P., Scott, R.L., Moran, M.S., Keefer, T.O., and Huxman, T.E. 2010. Growing season ecosystem and leaf-level gas exchange of an exotic and native semiarid bunchgrass. *Oecologia* 163:561-570.
- Jardine, K., Abrell, L., Kurc, S.A., Huxman, T., Ortega, J., Guenther, A. 2010. Volatile organic compound emissions from *Larrea tridentata* (creosotebush). *Atmospheric Chemistry and Physics* 10:12191-12206.
- Jardine, K., Abrell, L., Kurc, S.A., Huxman, T., Ortega, J., Guenther, A. 2010. Volatile organic compound emissions from *Larrea tridentata* (creosotebush). DISCUSSION PAPER *Atmospheric Chemistry and Physics* 10:17113-17151.

- Kurc, S.A., and Benton, L.M. 2010. Digital image-derived greenness links deep soil moisture to carbon uptake in a creosotebush-dominated shrubland, *Journal of Arid Environments* 74:585-594.
- McClaran, M.P., Browning, D.M., and Huang, C. 2010. Temporal dynamics and spatial variability in desert grassland vegetation. In R.H. Webb, D.E. Boyer, and R.M. Turner (eds.). *Repeat Photography: Methods and Applications in the Natural Sciences*. Island Press. Pages 145-166.
- van Leeuwen, W.J.D., Davison, J.E., Casady, G.M. and Marsh, S.E. 2010. Phenological characterization of desert sky island vegetation communities with remotely sensed and climate time series data. *Remote Sensing* 2:388-415.
- Polyakov, V.O., Nearing, M.A., Nichols, M.H., Scott, R.L., Stone, J.J., and McClaran, M.P. 2010. Long-term runoff and sediment yields from small semi-arid watersheds in southern Arizona. *Water Resources Research*. Vol. 46. doi:10.1029/2009WR009001
- Potts, D.L., Scott, R.L., Bayram, S., and Carbonara, J. 2010. Woody plants modulate the temporal dynamics of soil moisture in a semi-arid mesquite savanna. *Ecohydrology* 3:20-27.
- Scott, R.L. 2010. Using watershed water balance to evaluate the accuracy of eddy covariance evaporation measurements for three semiarid ecosystems. *Agricultural and Forest Meteorology* 150:219-225.
- Villegas, J.C., Breshears, D.D., Zou, C.B., and Law, D.J. 2010. Ecohydrological controls of soil evaporation in deciduous drylands: How the hierarchical effects of litter, patch and vegetation mosaic cover interact with phenology and season. *Journal of Arid Environments* 74:595-602.
- Villegas, J.C., Breshears, D.D., Zou, C.B., and Royer, P.D. 2010. Seasonally pulsed heterogeneity in microclimate: phenology and cover effects along deciduous grassland-forest continuum. *Vadose Zone Journal* 9:537-547.

2009

- Archer, S.R., Woods, S.R., Howery, L.D. 2009. Grasslands or Shrubland? Tipping the Balance. *Backyards & Beyond, Rural Living in Arizona* 3 (1):3-4. University of Arizona Cooperative Extension Service.
- Breshears, D.D., Whicker, J.J, Zou, C.B., Field, J.P., and Allen, C.D. 2009. A conceptual framework for dryland aeolian sediment transport along the grassland-forest continuum: Effects of woody plant canopy cover and disturbance. *Geomorphology* 105: 28-38.
- Bronstein, J.L., Huxman, T., Horvath, B., Farabee, M., Davidowitz, G. 2009. Reproductive biology of *Datura wrightii*: the benefits of associating with an herbivorous pollinator. *Annals of Botany* 103:1435-1443.
- Browning, D.M., Archer, S.R., and Byrne, A.T. 2009. Field validation of 1930s aerial photography: What are we missing? *Journal of Arid Environments* 73:844-853.
- Carlo, T.A., Tewkbury, J.J., and Martinez del Rio, C. 2009. A new method to track seed dispersal and recruitment us ¹⁵N isotope enrichment. *Ecology* 90:3516-3525.
- McDonald, C.J. 2009. Management of nonnative perennial grasses in southern Arizona: effects of prescribed grazing and livestock grazing. PhD Dissertation, University of Arizona.
- Moran, M.S., Hutchinson, B., Marsh, S.E., McClaran, M.P., and Olsson, A. 2009. Archiving and distributing three long-term interconnected geospatial data sets. *IEEE Transactions on Geoscience and Remote Sensing* 47:59-71.

- Nafus, A.M., McClaran, M.P., Archer, S.R., and Throop, H.L. 2009. Multi-species Allometric Models Predict Grass Biomass in Semi-Desert Rangeland. *Rangeland Ecology and Management* 62:68-72.
- Resco, V., Ewers, B.E., Sun, W., Huxman, T.E., Weltzin, J.F., and Williams, D.G. 2009. Drought-induced hydraulic limitations constrain leaf gas exchange recovery after precipitation pulses in the C₃ woody legume, *Prosopis velutina*. *New Phytologist* 181:672-682.
- Scott, R.L., Jenerette, G.D., Potts, D.L., and Huxman, T.E. 2009. Effects of seasonal drought on net carbon dioxide exchange from a woody-plant-encroached semiarid grassland. *Journal of Geophysical Research - Biogeosciences*, 114, G04004. doi:10.1029/2008JG000900
- Throop H.L., and Archer S.R. 2009. Resolving the dryland decomposition conundrum: some new perspectives on potential drivers. *Progress in Botany* 70:171-194.

2008

- Alarcon, R., Davidowitz, G, and Bronstein, J.L. 2008. Nectar usage in southern Arizona hawkmoth community. *Ecological Entomology* 33:503-509.
- Browning, D.M., Archer, S.R., Asner, G.P., McClaran, M.P., and Wessman, C.A. 2008. Woody plants in grasslands: post-encroachment stand dynamics. *Ecological Applications* 18:928-944.
- Cable, J.M., Ogle, K., Williams, D.G., Weltzin, J.F., and Huxman, T.E. 2008. Soil texture drives responses of soil respiration to precipitation pulses in the Sonoran Desert: implications for climate change. *Ecosystems* 11:961-979.
- Crimmins, T.M. and McPherson, G.R. 2008. Vegetation and seedbank response to *Eragrostis lehmanniana* removal in semi-arid desert communities. *Weed Research* 48:542-551.
- Deviche, P., Sabo, J., and Sharp, P.J. 2008. Glutamatergic stimulation of luteinising hormone secretion in relatively refractory male songbirds. *Journal of Neuroendocrinology* 20:1191-1202.
- Lytle, D.A., Bogan, M.T. and Finn, D.S. 2008. Evolution of aquatic insect behaviours across a gradient of disturbance predictability. *Proceedings of the Royal Society B-Biological Sciences* 275: 453-462.
- Mashiri, F.E., McClaran, M.P., and Fehmi, J.S. 2008. Long-term vegetation change related to grazing systems, precipitation and mesquite cover. *Rangeland Ecology and Management* 61:368-379.
- McClaran, M.P., Moore-Kucera, J., Martens, D.A., van Haren, J., and Marsh, S.E. 2008. Soil carbon and nitrogen in relation to shrub size and death in a semi-arid grassland. *Geoderma* 145:60-68.
- Moran, M.S., Peters, D.P.C., McClaran, M.P., Nichols, M.H. and Adams, M.B. 2008. Long-term data collection and USDA Experimental Sites for studies of ecohydrology. *Ecohydrology* 1:377-393.
- McLain, J.E., Martens, D.A. and McClaran, M.P. 2008. Soil cycling of trace gases in response to mesquite management in a semiarid grassland. *Journal of Arid Environments* 72:1654-1665.
- Potts, D.L., Scott, R.L., Cable, J.E., Huxman, T.E., and Williams, D.G. 2008. Sensitivity of mesquite shrubland carbon exchange to precipitation in contrasting physiographic settings. *Ecology* 89:2900-2910.
- Renken, W.J., Howery, L.D., Ruyle, G.B., and Enns, R.M. 2008. Cattle generalize visual cues from the pen to the field to select initial feeding patches. *Applied Animal Behavior Science* 109:128-140.

- Resco, V., Ignace, Sun, W., Huxman, T.E., Weltzin, J.F., and Williams, D.G. 2008. Chlorophyll fluorescence, predawn water potential and photosynthesis in precipitation pulse-driven ecosystems – implications for ecological studies. *Functional Ecology* 22:479-483.
- Riffell, J.A., Alarcon, R., Abrell, L., Davidowitz, G., Bronstein, J.L, and Hildebrand, J.G. 2008. Behavioral consequences of innate preferences and olfactory learning in hawkmoth-flower interactions. *Proceedings of the National Academy of Sciences* 105:3404-3409.
- Rowe, A.H. and M.P Rowe. 2008. Physiological resistance of grasshopper mice (*Onychomys* spp.) to Arizona bark scorpion (*Centruroides exilicauda*) venom. *Toxicon* 52:597-605.
- Scott, R.L., Cable, W.L., and Hultine, K.R. 2008. The ecohydrologic significance of hydraulic redistribution in a semiarid savanna. *Water Resources Research* 44. doi: W02440, doi: 10.1029/2007WR006149
- Small T.W., Sharp P.J., Bentley G.E., and Deviche, P. 2008. Relative photorefractoriness, prolactin, and reproductive regression in a flexibly breeding Sonoran Desert passerine, the Rufous-winged Sparrow, *Aimophila carpalis*. *Journal of Biological Rhythms* 23:69-80.
- Small T.W., Sharp P.J., Bentley G.E., Millar R.P., Tsutsui K., Mura E., and Deviche, P. 2008. Photoperiod-independent hypothalamic regulation of luteinizing hormone secretion in a free-living Sonoran Desert bird, the Rufous-winged Sparrow (*Aimophila carpalis*). *Brain, Behavior and Evolution*. 71:127-142.
- Small, T.W., Sharp, P.J., Bentley, G. E., Millar, R. P., Tsutsui, K., Strand, C., and Deviche, P. 2008. Auditory stimulation of reproductive function in male Rufous-winged Sparrows, *Aimophila carpalis*. *Hormones and Behavior* 53:28-39.
- Throop H.L, and Archer S.R. 2008. Shrub (*Prosopis velutina*) encroachment in a semi-desert grassland: spatial-temporal changes in soil organic carbon and nitrogen pools. *Global Change Biology* 14:2420-2431.
- van der Leeuw, E. 2008. Assessing the growth of residential development and its impact on the Santa Rita Experimental Range. MS Thesis, Department of Geography, University of Arizona, Tucson.
- Vivoni, E.R., Moreno, H.A., Mascaro, G., Rodriguez, J.C., Watts, C.J., Garatuza-Payan, J., and Scott, R.L. 2008. Observed relation between evapotranspiration and soil moisture in the North American Monsoon region. *Geophysical Research Letters* 35: L22403. doi:10.1029/2008GL036001

2007

- Bogan, M.T. and D.A. Lytle. 2007. Seasonal flow variation allows ‘time-sharing’ by disparate aquatic insect communities in montane desert streams. *Freshwater Biology* 52: 290-304.
- Carlo, T.A., Aukema, J.E., and Morales, J.M. 2007. Plant-frugivore interactions as spatially explicit networks: integrating frugivore foraging with fruiting plant spatial patterns. In Dennis, A., Schupp, E.W., Green, R.J. and Wescott, D.A. (Eds.). *Seed Dispersal: Theory and its Application in a Changing World*. CAB International Press. Oxfordshire, UK. Pages 369-390.
- Huang, C., Marsh, S.E., McClaran, M.P., and Archer, S.R. 2007. Post-fire stand structure in a semi-arid savanna: cross-scale challenges estimating biomass. *Ecological Applications* 17:1899-1910.
- McClaran, M.P., and Angell, D.L. 2007. Mesquite and grass relationships at two spatial scales. *Plant Ecology* 191:119-126.

- McClaran, M.P. and Nafus, A.M. 2007. Noteworthy collections: *Enneapogon cenchroides* (Licht.) C.E. Hubb. (POACEAE), Arizona. *Madrono* 54:203.
- Ignace, D.D. 2006. Functional responses of Sonoran Desert plant species to precipitation. PhD Dissertation. University of Arizona, Tucson.
- Ignace, D.D., Huxman, T.E., Weltzin, J.F., and Williams, D.G. 2007. Leaf gas exchange and water status responses of a native and non-native grass to precipitation across contrasting soil surfaces in the Sonoran Desert. *Oecologia* 152:401-413.
- Nafus, A.M. 2007. Using allometry to predict biomass for eight semi-desert grass species. M.S. Thesis. University of Arizona, Tucson.
- Papaj, D.R., Mallory, H.S., and Heinz, C.A. 2007. Extreme weather change and the dynamics of oviposition behavior in the pipevine swallowtail, *Battus philenor*. *Behavioral Ecology* 152:365-375.
- Small, T.W., Sharp, P.J., and Deviche, P. 2007. Environmental regulation of the reproductive system in a flexibly breeding Sonoran Desert bird, the Rufous-winged Sparrow, *Aimophila carpalis*. *Hormones and Behavior* 51: 483-495.
- Strand C.R., Small T.W., and Deviche, P. 2007. Plasticity of the Rufous-winged Sparrow, *Aimophila carpalis*, song control regions during the monsoon-associated summer breeding period. *Hormones and Behavior* 52: 401-408.
- Throop, H. L. and S. R. Archer. 2007. Interrelationships among shrub encroachment, land management and leaf litter decomposition in a semi-desert grassland. *Ecological Applications* 17:1809-1823.
- Wheeler, C.W., Archer, S.R., Asner, G.P., and McMurtry, C.R. 2007. Climate and edaphic controls on soil carbon-nitrogen response to woody plant encroachment in desert grassland. *Ecological Applications* 17:1911-1928.

2006

- Bronstein, J.L., Huxman, T.E., and Davidowitz, G. 2006. Plant-mediated effects linking herbivory and pollination. In: Ohgushi, T., Craig, T.G., and Price, P.W. (Eds.). *Ecological Communities: Plant Mediation in Indirect Interaction Webs*. Cambridge University Press. Pages 79-103.
- Cable, J.M. 2006. Precipitation effects on soil carbon cycling in the Sonoran Desert. PhD Dissertation. University of Arizona, Tucson.
- Deviche, P., Small, T., Sharp, P. and Tsutsui, K. 2006. Control of luteinizing hormone and testosterone secretion in a flexibly breeding male passerine, the Rufous-winged Sparrow, *Aimophila carpalis*. *General and Comparative Endocrinology* 149: 226-235.
- Fravolini, A. 2006. Response of mesquite (*Prosopis velutina* Woot.) carbon-water relations to variations in soil texture and precipitation. PhD Dissertation. School of Natural Resources, University of Arizona, Tucson.
- Heisler, J.L., and Weltzin, J.F. 2006. Variability matters: towards a perspective on the influence of precipitation on terrestrial ecosystems. *New Phytologist* 172:189-192.
- Hobbs, R.J, DeStafano, S., and Halvorson, W.L. 2006. Breeding biology and nest-site selection of red-tailed hawks in an altered desert grassland. *Journal of Raptor Research* 40:38-45.
- Huang, C. 2006. Understanding the ecological complexity of semi-arid savannas using remote sensing. PhD Dissertation. School of Natural Resources, University of Arizona, Tucson, AZ.

- Hultine, K.R., Koepke, D.F., Pockman, W.T., Fravolini, A., Sperry, J.S., and Williams, D.G. 2006. Influence of soil texture on hydraulic properties and water relations of a dominant warm-desert phreatophyte. *Tree Physiology* 26: 313-324.
- Ignace, D.D. 2006. Functional responses of Sonoran Desert plant species to precipitation. PhD Dissertation. University of Arizona, Tucson.
- McClaran, M.P., and Angell, D.L. 2006. Long-term vegetation response to mesquite removal in Desert Grassland. *Journal of Arid Environments* 66:686-697.
- Mau-Crimmins, T., Schussman, H.R., and Geiger, E.L. 2006. Can the invaded range of a species be predicted sufficiently using only native-range data?: Lehmann lovegrass (*Eragrostis lehmanniana*) in the southwestern United States. *Ecological Modelling* 193:736-746.
- Pease, S., Ffolliott, P.F., Gottfried, G.J., and DeBano, L.F. 2006. Mesquite removal and mulching impacts on herbage production on a semidesert grass-shrub rangeland. USDA Forest Service, Rocky Mountain Research Station RMRS-RP-59. 5 p.
- Potts, D.L., Huxman, T.E., Cable, J.M., English, N.B., Ignace, D.D., Eilts, J.A., Mason, M.J., Weltzin, J.F., and Williams, D.G. 2006. Antecedent moisture and seasonal precipitation influence response of canopy scale carbon and water exchange to rainfall pulses in semi arid grassland. *New Phytologist* 170:849-860.
- Potts, D.L., Huxman, T.E., Enquist, B.J., Weltzin, J.F., and Williams, D.G. 2006. Resilience of ecosystem functional response to a precipitation pulse in a semi-arid grassland. *Journal of Ecology* 94:23-30.
- Riddle, B.R., and Hafner, D.J. 2006. A step-wise approach to integrating phylogeographic and phylogenetic biogeographic perspectives on the history of a core North American warm deserts biota. *Journal of Arid Environments* 66:435-461.
- Rowe, A.H., and M.P. Rowe. 2006. Risk assessment by grasshopper mice (*Onychomys* spp.) feeding on neurotoxic prey (*Centruroides* spp.). *Animal Behaviour* 71:725-734.
- Schussman, H.R., Geiger, E.L. Mau-Crimmins, T.M., and Ward, J. 2006. Spread and current potential distribution of an alien grass, *Eragrostis lehmanniana* Nees, in the southwestern USA: comparing historical data and ecological niche models. *Diversity and Distributions* 12:582-592.
- Small, T.W. 2006. Environmental and endocrine control of reproduction in rufous-winged sparrows, *Aimophila carpalis*. PhD Dissertation, Arizona State University.
- Smith, S.E., Fendenheim, D., and Halbrook, K. 2006. Epidermal conductance as a component of dehydration avoidance in *Digitaria californica* and *Eragrostis lehmanniana*, two perennial desert grasses. *Journal of Arid Environments*. 64:238-250.
- Yepez, E. 2006. Sources and dynamics of carbon dioxide exchange and evapotranspiration in semiarid environments. PhD Dissertation, School of Natural Resources, University of Arizona.
- Yu, H., Gouge, D.H., and Baker, P. 2006. Parasitism of subterranean termites (Isoptera: Rhinotermitidae: Termitidae) by entmopathogenic nematodes (Rhabditida: Steinernematidae; Heterorhabditidae). *Journal of Economic Entomology* 99:1112-1119.

2005

- Deviche, P., McGraw, K., and Greiner, E.C. 2005. Interspecific differences in hematozoan infection in Sonoran Desert *Aimophila* sparrows. *Journal of Wildlife Diseases* 41:532-541.

- Deviche, P., and Small, T. 2005. Environmental control of reproduction in the Sonoran Desert *Aimophila* sparrows. In: Dawson, A., Sharp, P.J. (eds.). Functional Avian Endocrinology. Narosa Publishing House, New Delhi, India. Pp. 153-166.
- English, N.B., Weltzin, J.F., Fravolini, A., Thomas, L.M., and Williams, D.G. 2005. The influence of soil texture and vegetation on soil moisture under rainout shelters in a semi-desert grassland. *Journal of Arid Environments* 63:324-343.
- Fang, H., Liang, S., McClaran, M.P., van Leeuwen, W.J.D., Drake, S., Marsh, S., Thomson, A., Izaurralde, R.C., and Rosenberg, N.. 2005. Biophysical characterization and management effects on semiarid rangeland observed from Landsat ETM+ data. *Institute of Electrical & Electronics Engineers (IEEE) Transactions in Geosciences and Remote Sensing* 43:125-134.
- Fravolini, A., K. Hultine, K., Brugnoli, E., Gazal, R., English, N., and Williams, D.G. 2005. Precipitation pulse use by an invasive woody legume: the role of soil texture and pulse size. *Oecologia* 144:618-627.
- Mau-Crimmins, T. 2005. The Prospects for Spread and Impacts of Removal of *Eragrostis lehmanniana* Nees. PhD Dissertation. School of Natural Resources, University of Arizona, Tucson.
- McIntosh, M.E. 2005. Pollination of two species of *Ferocactus*: interactions between cactus-specialist bees and their host plants. *Functional Ecology* 19:727-734.
- Olberding, S.D., Mitchell, J.E., and Moore, M.M. 2005. "Doing the best we could with what we had": USFS range research in the Southwest. *Rangelands*, 27(3):29-36.
- Papaj, D.R., and Newsom, G.M. 2005. A within-species warning function for an aposematic signal. *Proceedings of the Royal Society of London, Series B* 272:2519-2523.
- Potts, D.L. 2005. Rainfall variability and carbon cycling in semi-arid ecosystems. PhD Dissertation. University of Arizona, Tucson.
- Yepez, E.A., Huxman, T.E., Ignace, D.D., English, N.B., Weltzin, J.F., Castellanos, A.E., and Williams, D.G. 2005. Dynamics of transpiration and evaporation following a moisture pulse in semiarid grassland: a chamber based isotope method for partitioning evapotranspiration. *Agricultural and Forest Meteorology* 132:359-376.

2004

- Aukema, J.E. 2004. Distribution and dispersal of desert mistletoe is scale-dependent, hierarchically nested. *Ecography* 27: 137-144.
- Burt, E. H., Jr. and J. M. Ichida. 2004. Gloger's rule, feather-degrading bacteria, and color variation among Song Sparrows. *Condor* 106:681-686.
- Chesson, P., Gebauer, R.L.E., Schwinning, S., Huntly, N., Wiegand, K., Ernest, M.S.K., Sher, A., Novoplansky, A., and Weltzin, J.F. 2004. Resource pulses, species interactions, and diversity maintenance in arid and semi arid environments. *Oecologia* 141:236-253.
- Fernandez-Gimenez, M.E. and Smith, S.E. 2004. Nitrogen effects on Arizona cottontop and Lehmann lovegrass seedlings. *Journal of Range Management* 57: 76-81.
- Goldstein, G., K. R. Flory, B. A. Browne, S. Majid, J. M. Ichida, and E. H. Burt, Jr. 2004. Bacterial degradation of black and white feathers. *Auk* 121:656-659.
- Gottesman, A.B., Krausman, P.R., Morrison, M.L., and Petryszyn, Y. 2004. Movements and home range of brush mice. *Southwestern Naturalist* 49: 289-294.
- Gottesman, A.B., Morrison, M.L., and Krausman, P.R. 2004. Habitat use by brush mice (*Peromyscus boylii*) in southeastern Arizona. *Western North American Naturalist* 64: 259-264.

- Hultine, K. 2004. Water uptake by *Prosopis velutina*: the role of soil hydraulic limits and root function. PhD Dissertation, School of Natural Resources, University of Arizona.
- Hupy, C.M., Whitford, W.G., and Jackson, E.C. 2004. The effect of dominance by an alien grass species, Lehmann lovegrass, *Eragrostis lehmanniana*, on faunal-pedoturbation patterns in North American Desert grasslands. *Journal of Arid Environments* 58:321-334.
- Huxman T.E., Cable, J.M., Ignace, D.D., Eilts, A.J., English, N., Weltzin, J.F., and Williams, D.G. 2004. Response of net ecosystem gas exchange to a simulated precipitation pulse in a semiarid grassland: the role of native versus non-native grasses and soil texture. *Oecologia* 141:295-305.
- Huxman, T.E., Smith, M.D., Fay, P.A., Knapp, A.K., Shaw, M.R., Loik, M.E., Smith, S.D., Tissue, D.T., Zak, J.C., Weltzin, J.F., Pockman, W.T., Sala, O.E., Haddad, B., Harte, J., Koch, G.W., Schwinning, S., Small, E.E., and Williams, D.G. 2004. Convergence across biomes to a common rain-use efficiency. *Nature* 429:651-654.
- Huxman TE, Snyder KA, Tissue D, Leffler AJ, Pockman W, Ogle K, Sandquist D, Potts DL, and Schwinning S. 2004. Precipitation pulses and carbon balance in semi-arid and arid ecosystems. *Oecologia* 141:254-268.
- Kaurivi, J. 2004. Mapping the Spatial and Temporal Dynamics of the Velvet Mesquite with MODIS and AVIRIS: A Case Study at the Santa Rita Experimental Range, PhD Dissertation, Department of Soil, Water and Environmental Science, University of Arizona, Tucson.
- Kerley, G.I.H., Whitford, W.G., and Kay, F.R. 2004. Effects of pocket gophers on desert soils and vegetation. *Journal of Arid Environments* 58:153-166
- Rodriguez, R.M., and Ammerman, L.K. 2004. Mitochondrial DNA divergence does not reflect morphological difference between *Myotis californicus* and *Myotis ciliolabrum*. *Journal of Mammalogy*, 85:842-851.
- Rudgers, J. A. 2004. Enemies of herbivores can shape plant traits: selection in a facultative ant-plant mutualism. *Ecology* 85:192-205.
- Rudgers, J.A. and Gardener, M.C. 2004. Extrafloral nectar as a resource mediating multi-species interactions in communities. *Ecology* 85:1495-1502.
- Society for Range Management History Committee. 2004. Third in a series: insight from SRM's charter members (includes D.R. Cable). *Rangelands*, 26(5):43-47.
- Tiedemann A.R. and Klemmedson J.O. 2004. Responses of desert grassland vegetation to mesquite removal and regrowth. *Journal of Range Management* 57: 455-465.
- Tiedemann, A.R., and Klemmedson, J.O. 2004. Responses of desert grassland vegetation to mesquite removal and regrowth. *Rangeland Ecology & Management* 57:455-465.

2003

- Abbott L.B., and Roundy B.A. 2003. Available water influences field germination and recruitment of seeded grasses. *Journal of Range Management* 56: 56-64.
- Aukema, J.E. 2003. Vectors, viscin, and Viscaceae: mistletoes as parasites, mutualists, and resources. *Frontiers in Ecology and the Environment* 1: 212-219.
- Batchily, A.K., Post, D.F., Bryant, R.B., and Breckenfeld, D.J. 2003. Spectral reflectance and soil morphology characteristics of Santa Rita Experimental Range soils. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). *Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 175-182.*

- Breckenfeld, D.J., and Robinett, D. 2003. Soil and ecological sites on the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 157-165.
- Crimmins, M., and Mau-Crimmins, T. 2003. Climate Variability and the spread of non-native plant species at the Santa Rita Experimental Range, Arizona. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 111-115.
- English, N.B., Williams, D.G., and Weltzin, J.F. 2003. Soil temperature and moisture dynamics after experimental irrigation on two contrasting soils on the Santa Rita Experimental Range: implications for mesquite establishment. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 188-192.
- Ffolliott, P.F., Gottfried, G.J., and Kruse, W.H. 2003. Vegetation management practices: past and present. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 48-58.
- Fravolini A., Hultine K.R., Koepke, D.F., and Williams, D.G. 2003. The role of soil texture on mesquite water relations and response to summer precipitation. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 125-129.
- Geiger, E., Mau-Crimmins, T., and Schussman, H.. 2003. Predicting Lehmann lovegrass spread in Southeastern Arizona, USA. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 116-120.
- Gottfried, G.F., Ffolliott, P.F., Garcia, P., Valdez-Zamudio, D, and Al-Khour, A. 2003. Assessment of fire-damaged mesquite trees 8 years following an illegal burn. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 166-168.

- Howery, L.D., Munda, B.D., Robinett, D.G., and Buck, H.H. 2003. Sweet resin bush on the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 169-174.
- Kaurivi, J.K.U., Huete, A.R., and Didan, K. 2003. Multitemporal MODIS-EVI relationships with precipitation and temperature at the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 121-124.
- Krausman, P.R., and Morrison, M.L. 2003. Wildlife ecology and management, Santa Rita Experimental Range (1903-2002). In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 59-67.
- Lane, L.J., and Kidwell, M.R. 2003. Hydrology and soil erosion. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 92-100.
- Madsen, J.H. 2003. Cultural resources of the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 68-79.
- McClaran, M.P. 2003. A century of vegetation change on the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 16-33.
- McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). 2003. Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station.
- Medina, A.L. 2003. Gambel and scaled quail diets on the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 133-140.

- Medina, A.L. 2003. Historical and recent flora of the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages.141- 148.
- Mgxashe, N.P. 2003. Evaluating visual obstruction and dry-weight rank methods for estimating total biomass and species composition in the Desert Grassland. MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.
- Munda, B.D., and Pater, M.J. 2003. Revegetation practices on the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 80-91.
- Pease, S., Ffolliott, P.F., DeBano, L.F., and Gottfried, G.J. 2003. Mesquite removal and mulching treatment impacts on herbage production and selected soil chemical properties. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 130-132.
- Ogden, P.R., and Smith, E.L.. 2003. Cow weights and calf productions for pasture 12C Lehmann lovegrass grazing trials, 1982-1993. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 183-187.
- Ruyle, G.B. 2003. Rangeland livestock production: developing the concept of sustainability on Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages. 34-47.
- Sayre, N.F. 2003. Recognizing history in range ecology: 100 years of science and management on the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 1-15.
- Sheridan, T.E. 2003. Archive and laboratory embedded in the landscape: future of the Santa Rita Experimental Range. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 101-110.
- Weiss, M.R., and Papaj, D.R. 2003. Butterfly color learning in two different behavioral contexts: How much can a butterfly keep in mind? *Animal Behaviour* 65: 425-434.

- Weltzin, J.F., Loik, M.E., Schwinning, S., Williams, D.G., Fay, P., Haddad, B., Harte, J., Huxman, T.E., Knapp, A.K., Lin, G., Pockman, W.T., Shaw, M.R., Small, E., Smith, M.D., Smith, S.D., Tissue, D.T., and Zak, J.C. 2003. Assessing the response of terrestrial ecosystems to potential changes in precipitation. *BioScience* 53:941-952.
- Weltzin, J.F., and Tissue, D.T. 2003. Resource pulses in arid environments - patterns of rain, patterns of life. *New Phytologist* 157:171-173.
- Wissler, C., and Angell, D. 2003. New data sources and derived products for the SRER digital spatial database. In, McClaran, M.P., Ffolliott, P.F., and Edminster, C.B. (tech. coords.). Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30-November 1; Tucson, AZ. Proceedings RMRS-P-30. USDA Forest Service, Rocky Mountain Research Station. Pages 193-197.

2002

- Aukema, J.E. and Martínez del Rio, C. 2002. Where does a fruit eating bird deposit mistletoe seeds? Seed deposition patterns and an experiment. *Ecology* 83:3489-3496.
- Aukema, J. E. and C. Martinez del Rio. 2002. Mistletoes as parasites and seed-dispersing birds as disease vectors: current understanding, challenges, and opportunities. Pages 99-110/ in/ D. J. Levey, W. R. Silva, and M. Galetti, editors. /Seed Dispersal and Frugivory: Ecology, Evolution and Conservation. /CAB International Press. Oxfordshire, UK.
- Fravolini, A., Williams, D.G., and Thompson, T.L. 2002. Carbon isotope discrimination and bundle sheath leakiness in three C₄ subtypes grown under variable nitrogen, water and atmospheric CO₂ supply. *Journal of Experimental Botany* 53:2261-2269.
- Gottesman, A.B. 2002. Movements and habitat use of the brush mouse. MS Thesis, School of Renewable Natural Resources, University of Arizona, Tucson.
- McClaran, M.P., Angell, D.L., and Wissler, C. 2002. Santa Rita Experimental Range Digital Database User's Guide. USDA Forest Service, Rocky Mountain Research Station RMRS-GTR-100. 13 p.
- McIntosh, M.E. 2002. Flowering phenology and reproductive output in two sister species of *Ferocactus* (Cactaceae). *Plant Ecology* 159:1-13.
- McIntosh, M.E. 2002. Plant size, breeding system, and limits to reproductive success in two sister species of *Ferocactus* (Cactaceae). *Plant Ecology* 162:273-288.
- Morrison, M.L., Kuenzi, A.J., Brown, C.F., and Swann, D.E.. 2002. Habitat trends and abundance of rodents in southeastern Arizona. *The Southwestern Naturalist* 47: 519-526.
- Reeder, T.W., Cole, C.J., and Dessauer, H.C. 2002. Phylogenetic relationships of whiptail lizards of the genus *Cnemidophorus* (Squamata: Teiidae): a test of monophyly, reevaluation of karyotypic evolution, and review of hybrid origins. *American Museum Novitates* number 3365. 61 pages.
- Schussman, H.R. 2002. Genetic variation in the introduced apomictic grass, *Eragrostis lehmanniana* Nees on the Santa Rita Experimental Range in southeastern Arizona, USA. MS Thesis. School of Natural Resources, University of Arizona, Tucson.
- Widmer, K.A. 2002. The relationship between *Agave palmeri* flower stalk herbivory and livestock management. MS Thesis. School of Natural Resources, University of Arizona, Tucson.

Yates, T.L., Mills, J.N., Parmenter, C.A., Ksiazek, T.G., Parmenter, R.R., Vande Castle, J.R., Calisher, C.H., Nichol, S.T., Abbott, K.D., Young, J.C., Morrison, M.L., Beaty, Barry, J., Dunnun, J.L., Baker, R.J., Salazar-Bravo, J., and Peters, C.J. 2002. The ecology and evolutionary history of an emergent disease: hantavirus pulmonary syndrome. *Bioscience* 52: 989-998.

2001

Angell, D.L., and McClaran, M.P. 2001. Long-term influences of livestock management and a non-native grass dynamics in the Desert Grassland. *Journal of Arid Environments* 49:507-520.

Aukema, J. E. 2001. Dispersal and spatial distribution of the desert mistletoe, *Phoradendron californicum*, at multiple scales: patterns, processes and mechanisms. PhD Dissertation. Department of Ecology and Evolutionary Biology, University of Arizona, Tucson.

2000

Riddle, B.R., Hafner, D.J., and Alexander, L.F. 2000. Phylogeography and systematics of the *Peromyscus eremicus* species group and the historical biogeography of North American warm regional deserts. *Molecular Phylogenetics and Evolution* 17:145-160.

Smith, S.E., Riley, E., Tiss, J.L., and Fendenheim, D.M. 2000. Geographical variation in predictive seedling emergence in a perennial desert grass. *Journal of Ecology* 88:139-149.

Williams, D.G., and Baruch, Z. 2000. African grass invasion in the Americas: ecosystem consequences and the role of ecophysiology. *Biological Invasions* 2:123-140.

Womack, J.D. 2000. Mortality and sprouting vigor of burned and cut velvet mesquite (*Prosopis velutina* Wooten): The role of basal diameter and number of stem. MS Thesis, School of Natural Resources, University of Arizona, Tucson.

1999

Abbott, L.A. 1999. Effects of planting date and species choice on the fate of planted warm-season perennial grass seeds: implications for revegetation. PhD Dissertation. School of Natural Resources, University of Arizona, Tucson.

Angell, D.L. 1999. Twenty-five years of perennial grass dynamics in relation to grazing intensity and nonnative Lehmann lovegrass in a desert grassland range in southern Arizona. MS Thesis, School of Natural Resources, University of Arizona, Tucson.

Emmerich, W.E. 1999. Nutrient dynamics of rangeland burns in southeastern Arizona. *Journal of Range Management* 52:606-614.

Kuenzi, A.J., Morrison, M.L., Swann, D.E., Hardy, P.C., and Downard, G.T. 1999. A longitudinal study of Sin Nombre virus prevalence in rodents, Southeastern Arizona. *Emerging Infectious Diseases* 5: 113-117.

Vleck, C.M., and Patrick, D.J. 1999. Effects of vasoactive intestinal peptide on prolactin secretion in three species of passerine birds. *General and Comparative Endocrinology* 113:146-154.

Whitford, W.G., Van Zee, J., Nash, M.S., Smith, W.E., and Herrick, J.E. 1999. Ants as indicators of exposure to environmental stressors in North American desert grasslands. *Environmental Monitoring and Assessment* 54:143-171.

1998

Rogstad, K.A. 1998. Emergence and cool-season growth of Lehmann lovegrass and Arizona cottontop on different soils. MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.

1997

Livingston M., Roundy B.A., and Smith S.E. 1997. Association of overstory plant canopies and native grasses in southern Arizona. *Journal of Arid Environments* 35: 441-449.

Roundy, B.A., Abbott, L.B., and Livingston, M. 1997. Surface soil water loss after summer rainfall in a semidesert grassland. *Arid Soil and Rehabilitation* 11:49-62.

Swann, D E., Kuenzi, A.J., DeStefano, S., and Morrison, M.L. 1997. The effects of blood sampling on survival of small mammals: a field study. *Journal of Mammalogy* 78:908-913.

1996

Biedenbender, S.H., and Roundy, B.A. 1996. Establishment of native semidesert grasses into existing stands of *Eragrostis lehmanniana* in southeastern Arizona. *Restoration Ecology* 4:155-162.

Medina, A.L. 1996. The Santa Rita Experimental Range: history and annotated bibliography (1903-1988). General Technical Report RM-GTR-276. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station.

Roundy, B.A., and Biedenbender, S.H. 1996. Germination of warm-season grasses under constant and dynamic temperatures. *Journal of Range Management* 49:425-431.

Ruyle, G.B., and Rice, R.W. 1996. Aspects of forage availability and short-term intake influencing range livestock production. Proceedings, Grazing Livestock Nutrition Conference. V 0147, Suppl. 1, Proceedings Western Section American Society of Animal Science pp 40-50.

1995

Gatica, R.A. 1995. Caryopsis and spikelet characteristics related to germination behavior in *Digitaria californica*. MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.

Keys, R. N., Buchmann, S.L., and Smith, S.E. 1995. Pollination effectiveness and pollination efficiency of insects foraging on *Prosopis velutina* in southeastern Arizona. *Journal of Applied Ecology* 32:519-527.

McClaran, M.P. 1995. Desert grasslands and grasses. In, McClaran, M.P., Van Devender, T.R. (Eds.). *The Desert Grassland*. University of Arizona Press, Tucson. pp.1-30.

Renken, W.J. 1995. In-vitro dry matter digestibility of Lehmann lovegrass (*Eragrostis lehmanniana* Nees) within grazed patch and lightly grazed areas. MS Thesis, University of Arizona, Tucson.

1994

Douds, G.A. 1994. Recovery rate of Lehmann lovegrass (*Eragrostis lehmanniana* Nees) in a simulated short duration grazing system. MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.

Emmerich, W.E., and Cox, J.R. 1994. Changes in surface runoff and sediment production after repeated fall and spring rangeland burns. *Soil Science Society of America Journal* 58:199-203.

Gomes, H.S., Smith, E.L., and Ruyle, G.B. 1994. Habitos de pastejo de vacas Hereford (*Bos taurus*) e Barzona (*Bos indicus*) em pastagen nativa no deserto do Arizona. In, Rodrigues, F.M., Dias Filho, F.A., Paiva, J.A. (Eds.). *Fifth Simposio Nordeste de Alimentacao de Ruminantes*. Salvador, Bahia, Brasil. pp. 175-176.

Keys, R.N., and Smith, S.E.. 1994. Mating system parameters and population genetic structure in pioneer populations of *Prosopis velutina* (Leguminosae). *American Journal of Botany* 81:1013-1020.

1993

Cox, J.R., Alba-Avila, A. de, Rice, R.W., and Cox, J.N. 1993. Biological and physical factors influencing *Acacia constricta* and *Prosopis velutina* establishment in the Sonoran Desert. *Journal of Range Management* 46(1): 43-48.

Keys, R.N. 1993. Mating systems and pollination biology of velvet mesquite (*Prosopis velutina* Wooten). PhD Dissertation. School of Renewable Natural Resources, University of Arizona, Tucson.

Martin, S.C., and Morton, H.L. 1993. Mesquite control increases grass density and reduces soil loss in Southern Arizona. *Journal of Range Management* 46: 170-175.

Munda, Bruce David. 1993. Germination characteristics of two yellow bluestems, *Bothriochloa ischaemum* (L.) Kang. MS Thesis. Department of Plant Sciences, University of Arizona, Tucson.

Van Duren, K.J. 1993. The influence of Lehmann lovegrass on two native grasses in the Semi-desert grassland. MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.

1992

Anable, M.E., McClaran, M.P. and Ruyle, G.B. 1992. Spread of introduced Lehmann lovegrass in southern Arizona, USA. *Biological Conservation* 61:181-188.

Cox, J.R. 1992. Lehmann lovegrass live component biomass and chemical composition. *Journal of Range Management*, 45(6):523-527.

Emmerich, W.E., and Cox, J.R. 1992. Hydrologic characteristics immediately after seasonal burning of introduced and native grasslands. *Journal of Range Management* 45:476-479.

- Livingston, M. 1992. Factors influencing germination and establishment of Arizona. cottontop, bush muhly, and plains lovegrass. PhD Dissertation, School of Natural Resource, University of Arizona, Tucson.
- McClaran, M.P. and M.E. Anable. 1992. Spread of introduced Lehmann lovegrass along a grazing intensity gradient. *Journal of Applied Ecology* 29:92-98.
- Roundy, B.A., Taylorson, R.B., and Sumrall, L.B. 1992. Germination responses of Lehmann lovegrass to light. *Journal of Range Management*, 45(1):81-84.
- Roundy, B.A., Young, J.A., Sumrall, L.B., and Livingston, M. 1992. Laboratory germination responses of 3 lovegrasses to temperature in relation to seedbed temperatures. *Journal of Range Management*, 45(3):306-311.

1991

- Hardegree, S.P., and Emmerich, W.E. 1991. Variability in germination rate among seed lots of Lehmann lovegrass. *Journal of Range Management* 44(4):323-326.
- Ragotzkie, K.E., and Bailey, J.A. 1991. Desert mule deer use of grazed and ungrazed habitats. *Journal of Range Management*, 44(5):487-490.
- Sumrall, L.B., Roundy, B.A., Cox, J.R. and Winkel. V.K. 1991. Influence of canopy removal by burning or clipping on emergence of *Eragrostis lehmanniana* seedlings. *Int. J. Wildland Fire* 1:35-40.

1990

- Cox, J.R., Ruyle, G.B., Roundy, B.A., and Cox, J.R. 1990. Lehmann lovegrass in southeastern Arizona: biomass production and disappearance. *Journal of Range Management* 43:367-372.
- Lumbuenamo, S.D. 1990. Assessment of Biomass Dynamics of a Semi-desert Grassland by Remote Sensing Techniques. PhD Dissertation, Department of Soil, Water and Environmental Science, University of Arizona, Tucson.
- Morton, H.L. 1990. Creosotebush control and forage production in the Chihuahuan and Sonoran deserts. *Journal of Range Management* 43: 43-48.
- Morton, H.L., and Melgoza, A. 1990. Vegetation changes following brush control in creosotebush communities. *Journal of Range Management* 44:133-139
- Rice, R.W., Ruyle, G.B., and Ramoeketsi, K.S. 1990. The selection ability of cattle grazing bunchgrass. *Proceedings of the Western Section, American Society for Animal Science* 41:293-294.

1989

- Abu-Zanat, M.M.W. 1989. Ingestive behavior of cattle grazing in lightly and heavily grazed patches of Lehmann lovegrass (*Eragrostis lehmanniana* Nees). PhD Dissertation, School of Renewable Natural Resources, University of Arizona, Tucson.
- Anable, M.E. 1989. Alien plant invasion in relation to site characteristics and disturbance: *Eragrostis lehmanniana* on the Santa Rita Experimental Range, Arizona 1937-1989. MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.

Cox, J.R., Strohlein, J.L., and Fourie, J.H.. 1989. Climatic and edaphic conditions at *Eragrostis lehmanniana* Nees sites in Arizona, USA and the Cape Province, RSA and potential seeding sites in southern Africa. *Journal of Grassland Society of South Africa* 6: 139-145.

1988

Martin S.C., Severson K.E. 1988. Vegetation response to the Santa Rita grazing system. *Journal of Range Management* 41:291-295.

Ruyle, G.B., Ogden, P.R., and Rice, R.W. 1988. Cattle grazing patterns and response on Lehmann lovegrass (*Eragrostis lehmanniana* Nees) rangelands. *Applied Agricultural Research* 4: 177-181.

Ruyle, G.B., Roundy, B.A., and Cox, J.R. 1988. Effects of burning on germinability and emergence of Lehmann lovegrass. *Journal of Range Management* 41:404-406.

1987

Cox, J.R., Johnsen, T.N., Jr., and Morton, H.L. 1987. George Elmo Glendening -- an "unknown star" in Southwestern Range Research. *Rangelands* 9:158-160.

Emmerich, W.E., Frasier, G.W., and Fink, D.H. 1987. Relation between soil properties and effectiveness of low cost water-harvesting treatments. *Soil Science Society of America Journal* 51:213-219.

Ruyle, G.B., Hasson, O., and Rice, R.W. 1987. The influence of residual stems on the biting rates of cattle grazing *Eragrostis lehmanniana* Nees. *Applied Animal Behavior Science* 19: 11-17.

1986

Barth, R.C., and Klemmedson, J.O. 1986. Seasonal and annual changes in biomass nitrogen and carbon of mesquite and palo verde ecosystems. *Journal of Range Management*, 39(2): 108-112.

Cox, J.R., Madrigal, R.D., and Frasier, G.W. 1986. Survival of perennial grass transplants in the Sonoran Desert of the Southwestern USA. *Arid Soil Research and Rehabilitation* 1: 77-87

Oba, P.G. 1986. Effects of prescribed burning on the nutritive quality of Lehmann lovegrass (*Eragrostis lehmanniana* NEES). MS Thesis. School of Renewable Natural Resources, University of Arizona, Tucson.

1985

Tuckfield, R C. 1985. Ecological influences on the geographic patterns of song variation in two desert sparrows. Phd Dissertation. Indiana Univ. Bloomington.

1984

Cox, J.R., Morton, H.L., Johnsen, T.N., Jr., Jordan, G.L., Martin, S.C., and Fierro, L.C. 1984. Vegetation restoration in the Chihuahuan deserts of North America. *Rangelands* 6: 112-115.

- Cox, J.R., Parker, J.M., and Stroehlein, J.L. 1984. Soil properties in creosotebush communities and their relative effects on the growth of seeded ranges. *Soil Science Society of America Journal* 6:112-115.
- Ibarra, F.A., and Morton, H.L. 1984. Tebuthiuron residues in Chihuahuan and Sonoran Desert Soils. *Proceedings Western Society of Weed Science* 37: 113-127.
- Ibarra, F.A., and Morton, H.L. 1984. Chemical and mechanical control of woody plants in the creosote type of the Chihuahuan and Sonoran Deserts. *Proceedings Western Society of Weed Science* 37: 139-151
- Melgoza, A., Morton, H.L., and Melgoza, G. 1984. Botanical changes associated with applications of Tebuthiuron in creosotebush (*Larrea tridentata*) communities. *Proceedings Western Society of Weed Science* 37: 113-127.
- Morton, H.L. 1984. Influence of Tebuthiuron formulation on control of woody plants and forage production. *Proceedings Western Weed Control Conference* 37: 129-138.

1983

- Cox, J.R., Schreiber, H.A., and Morton, H.L. 1983. The initial growth of two range grasses on nonfertilized and fertilized soils collected from creosotebush communities in the Southwestern United States. *Journal of Range Management* 36: 726-729.

1982

- Barth, R.C., and Klemmedson, J.O. 1982. Amount and distribution of dry matter, nitrogen, and organic carbon in soil-plant systems of mesquite and palo verde. *Journal of Range Management*, 35(4):412-418.
- Cable, D.R. 1982. Partial defoliation stimulates growth of Arizona cottontop. *Journal of Range Management*, 35(5):591-593.

1980

- Chapline, W. R. 1980. First 10 years of the Office of Grazing Studies. *Rangelands*, (2)6: 223-227.

1978

- Morton, H.L., Smith, E.L., Oliveira, M., and Hull, H.M. 1978. Soil applied herbicides for brush control in Southwestern United States and Northeast Brazil. *Proceedings of the First International Rangeland Congress*, pp. 647-650.

1977

- Short, H.L. 1977. Food habits of mule deer in a semidesert grass-shrub habitat. *Journal of Range Management*, 30(3):206-209.
- Tiedemann, A.R., and Klemmedson, J.O. 1977. Effect of mesquite trees on vegetation and soils in the desert grassland. *Journal of Range Management*, 30(5): 361-367.

1968

Strohlein, J.L., Ogden, P.R., and Billy, B. 1968. Time of fertilizer application on desert grasslands. *Journal of Range Management*, 21(2):86-89.

1951

Everson, A.C. 1951. Grass yields of three differently treated range areas. *Journal of Range Management*, 4(2):93-94