

Center for Environmental Sciences and Engineering
Peer-Reviewed Publications by Center Faculty¹ or Staff² Members

Journal Articles or Book Chapters

- Aguiar, C.M.L., G.M.M. Santos, C.F. Martins, and S.J. Presley. 2013. Trophic niche breadth and niche overlap in a guild of flower-visiting bees in a Brazilian dry forest. *Apidologie* **44**: 153-162.
- Ahmed, K.F., **G.L. Wang**, J. Silander, M.A. Wilson, J.M. Allen, R. Horton, and R. Anyah. 2013. Statistical downscaling and bias correction of climate model outputs for climate change impact assessment in the U.S. Northeast. *Global and Planetary Changes* **100**: 320-332.
- Ahmed, K.F., **G.L. Wang**, L. You, and M. Yu. 2016. Potential impact of climate and socioeconomic changes on future agricultural land use in West Africa. *Earth System Dynamics* **7**: 151-165.
- Ahmed, K.F., **G.L. Wang**, L.Z. You, R. Anyah, **C. Zhang**, and A. Burnicki. 2017. Projecting regional climate and cropland changes using a linked biogeophysical-socioeconomic modeling framework. Part 2: Transient dynamics. *Journal of Advances in Modeling Earth Systems* **9**: 377-388.
- Ahmed, K.F., **G.L. Wang**, M. Yu, L.Z. You, and J.W. Koo. 2015. Potential impact of climate changes on cereal crop yield in West Africa. *Climatic Change* **133**: 321-334.
- Anastasio, D., and **J.R. McCutcheon**. 2012. Teaching mass transfer and filtration using crossflow reverse osmosis and nanofiltration: an experiment for the undergraduate unit operations lab. *Chemical Engineering Education* **46**: 19-28.
- Anastasio, D.D., C. Malgorzata, and **J.R. McCutcheon**. 2015. A First-Year Project-Based Design Course with Management Simulation and Game-Based Learning Elements. American Society for Engineering Education Annual Conference & Exposition. Paper ID #12397.
- Anastasio, D.D., J.T. Arena, E.A. Cole, and **J.R. McCutcheon**. 2015. Impact of temperature on power density in closed-loop pressure retarded osmosis for grid storage. *Journal of Membrane Science* **479**: 240-245.
- Ardon, M., **A.M. Helton**, and E.S. Bernhardt. 2016. Drought and saltwater incursion synergistically reduce dissolved organic carbon export from coastal freshwater wetlands. *Biogeochemistry* **127**: 411-426.
- Arena, J., M. Chwatko, H. Robillard, and **J.R. McCutcheon**. 2015. pH Impact on ion exchange in forward osmosis. *Environmental Science & Technology Letters* **2**: 177-182.
- Arena, J.T., M. Chwatko, H. Robillard, and **J.R. McCutcheon**. 2015. pH sensitivity of ion exchange through a thin film composite membrane in forward osmosis. *Environmental Science & Technology Letters* **2**: 177-182.
- Arena, J.T., S.S. Manickam, K.K. Reimund, P. Brodskiy, and **J.R. McCutcheon**. 2015. Characterization and performance relationships for a commercial thin film composite membrane in forward osmosis desalination and pressure retarded osmosis. *Industrial & Engineering Chemistry Research* **54**: 11393-11403.

- Atwood, T.C., E. Peacock, **M.A. McKinney**, K. Lillie, R. Wilson, and S. Miller. 2016. Rapid environmental change drives increased land use by an arctic marine predator. *PLoS One* **11**: e0155932.
- Barber, N., and **R.T. Fahey**. 2015. Consequences of phenology variation and oxidative defenses in *Quercus*. *Chemoecology* **25**: 261-270.
- Barclay, J., H. Tripp, C.J. Bellucci, G.S. Warner, and **A.M. Helton**. 2016. Do water body classifications predict water quality? *Journal of Environmental Management* **183**: 1-12.
- Bauer, D.M., and **S.K. Swallow**. 2013. Conserving metapopulations in human-altered landscapes at the urban-rural fringe. *Ecological Economics* **95**: 159-170.
- Bauer, D.M., **S.K. Swallow**, *P. Liu*, and R.J. Johnston. 2017. Do exurban communities want more development? *Journal of Land Use Science* **12**: 351-374.
- Beaudrot, L., et al. (30 authors including **M.R. Willig**). 2016. Standardized assessment of population trends in tropical forest protected areas: the end is not in sight. *PLoS Biology* **14**: e1002357.
- Bentley, G., D. Hanink, R. Cromley, **C. Zhang**, and D. Civco. 2014. Analyzing open space distributions in the context of an environmental Kuznets Curve: an example from the Northeastern United States. *The Northeastern Geographer* **6**: 1-26.
- Bingchuan, L., C. Brückner, Y. Lei, Y. Cheng, C. Santoro, and **B. Li**. 2014. Cobalt porphyrin-based material as methanol tolerant cathode in single chamber microbial fuel cells (SCMFCs). *Journal of Power Sources* **257**: 246-253.
- Bloch, C.P., and **M.R. Willig**. 2013. Density compensation suggests interspecific competition is weak among terrestrial snails in tabonuco forest of Puerto Rico. *Caribbean Journal of Science* **46**: 159-168.
- Bodhipaksha, L., C.M. Sharpless, Y.-P. Chin, M. Sander, W.K. Langston, and **A.A. MacKay**. 2015. Triplet photochemistry of effluent and natural organic matter in whole water and isolates from effluent-receiving rivers. *Environmental Science and Technology* **49**: 3453-3463.
- Boone, A., Y. Xue, F. De Sales, R. Comer, S. Hagos, S. Mahanama, K. Schiro, G. Song, **G. Wang** and C.R. Mechoso. 2016. The regional impact of Land-Use Land-Cover Change (LULCC) over West Africa from an ensemble of global climate models under the auspices of the WAMME2 project. *Climate Dynamics* **47**: 3547-3573.
- Bosker, T.**, J.F. Mudge and K.R. Munkittrick. 2013. Statistical reporting deficiencies in environmental toxicology. *Environmental Toxicology and Chemistry* **32**: 1737-1739.
- Bosker, T.**, K.R. Munkittrick, D.E. Nacci, and D.L. MacLatchy. 2013. Laboratory spawning patterns of mummichog (*Fundulus heteroclitus* L.). *Copeia* **2013**: 527-538.
- Bouchillon, G.M., J.F. Chau, G.B. McManus, and **L.M. Shor**. 2014. Microfluidic passive samplers for concentration and isolation of live protists. *Analytical Methods* **6**: 8350-8357.
- Bowles, M., **B.A. Lawrence**, and D. Antlitz. 2017. Thinning effects on woody structure, canopy openness, and groundlayer diversity in a burned mesic silt-loam oak savanna. *The Journal of the Torrey Botanical Society* **144**: 191-205.
- Brandt, L., A. Derby-Lewis, **R.T. Fahey**, L. Scott, L. Darling, and C. Swanston. 2016. A framework for adapting urban forests to climate change. *Environmental Science and Policy* **66**: 393-402.
- Brito, A.F., *S.J. Presley*, and G.M.M. Santos. 2012. Temporal and Trophic Niche Overlap in a Guild of Flower-Visiting Ants in a Seasonal Semi-Arid Tropical Environment. *Journal of Arid Environments* **87**: 161-167.

- Bui, N., and **J.R. McCutcheon**. 2014. High power density nanofiber supported thin film composite membranes for pressure retarded osmosis. *Environmental Science and Technology* **48**: 4129-4136.
- Bui, N.N., and **J.R. McCutcheon**. 2012 Hydrophilic nanofibers as new supports for thin film composite membranes for engineered osmosis. *Environmental Science and Technology* **47**: 1761–1769.
- Bui, N.N., and **J.R. McCutcheon**. 2013. Hydrophilic nanofibers as new supports for thin film composite membranes for engineered osmosis. *Environmental Science and Technology* **47**: 1761-1769.
- Bui, N.N., and **J.R. McCutcheon**. 2015. Proper accounting of mass transfer resistances in forward osmosis: improving the accuracy of model predictions of structural parameter. *Journal of Membrane Science* **492**: 289-302.
- Bui, N.N., and **J.R. McCutcheon**. 2016. Nanoparticle-embedded nanofibers in high permselectivity thin-film composite membranes for forward osmosis. *Journal of Membrane Science* **518**: 338-346.
- Butler, E., A. Silva, K. Horton, Z. Rom, M. Chwatko, A. Havasov, and **J.R. McCutcheon**. 2013. Point of use water treatment with forward osmosis for emergency relief. *Desalination* **312**: 23-30.
- Camire C., A.A. Provatas, and J.D. Stuart. 2015. Assessing the kinetics (consumption) of various antioxidants in unstable biodiesel made from both canola (rapeseed) and soybean oils. *Current Topics in Analytical Chemistry* **10**: 1-13.
- Cao, S., **B. Li**, R. Du, N. Ren, and Y. Peng 2016. Nitrite production in a partial denitrifying upflow sludge bed (USB) reactor equipped with gas automatic circulation (GAC). *Water Research* **90**: 309-316.
- Cao, S., R. Du, **B. Li**, N. Ren, and Y. Peng. 2016. High-throughput profiling of microbial community structures in an ANAMMOX-UASB reactor treating high-strength wastewater. *Applied Microbiology and Biotechnology* **100**: 6457-6467.
- Cao, S., R. Du, M. Niu, **B. Li**, N. Ren, and Y. Peng. 2016. Integrated anaerobic ammonium oxidization with partial denitrification process for advanced nitrogen removal from high-strength wastewater. *Bioresource Technology* **221**: 37-46.
- Carboni, E., B. Bognet, G. Bouchillon, **L.M. Shor**, M. Ward, and W.K.A. Ma. 2016. Direct tracking of particles and quantification of margination in blood flow. *Biophysical Journal* **111**: 1487-1495.
- Carter, D., **R.T. Fahey**, K. Driesilker, M.B. Bialecki, and M. Bowles. 2015. Evaluating trade-offs between oak regeneration and C sequestration in relation to management and historical land-use. *Forest Ecology and Management* **343**: 53-62.
- Carvalho, D.M., S.J. Presley, and G.M.M. Santos. 2014. Niche overlap and network specialization of flower-visiting bees (Hymenoptera: Apoidea) in an agricultural system. *Neotropical Entomology* **43**: 489-499.
- Cath, T.Y., M. Elimelech, **J.R. McCutcheon**, R.L. McGinnis, A. Achilli, D. Anastasio, A.R. Brady, A.E. Childress, I.V. Farr, N.T. Hancock, J. Lampi, L.D. Nghiem, M. Xie, and N.Y. Yip. 2013. Standard Methodology for Evaluating Membrane Performance in Osmotically Driven Membrane Processes. *Desalination* **312**: 31-38.

- Chen, Y., **B. Li**, L. Ye, and Y. Peng. 2015. The combined effects of COD/N ratio and nitrate recycling ratio on nitrogen and phosphorus removal in anaerobic/anoxic/aerobic -biological aerated filter (BAF) systems. *Biochemical Engineering Journal* **93**: 235-242.
- Chowdhury, M.R., J. Ren, K. Reimund, and **J.R. McCutcheon**. 2017. A hybrid dead-end cross-flow forward osmosis system for evaluating osmotic flux performance at high recovery of produced water. *Desalination* **421**: 127-134.
- Chowdhury, M.R., L. Huang, and **J.R. McCutcheon**. 2017. Thin film composite membranes for forward osmosis supported by commercial nanofiber nonwovens. *Industrial & Engineering Chemistry Research* **56**: 1057-1063.
- Cisneros, L.M., K.R. Burgio, L.M. Dreiss, B.T. Klingbeil, B.D. Patterson, S.J. Presley, and **M.R. Willig**. 2014. Multiple dimensions of bat biodiversity along an extensive tropical elevational gradient. *Journal of Animal Ecology* **83**: 1124-1136.
- Cisneros, L.M., M.E. Fagan, and **M.R. Willig**. 2014. Effects of human-modified landscapes on taxonomic, functional, and phylogenetic dimensions of bat biodiversity. *Diversity and Distributions* **21**: 523-533.
- Cisneros, L.M., M.E. Fagan, and **M.R. Willig**. 2014. Season-specific and guild-specific effects of anthropogenic landscape modifications on metacommunity structure of tropical bats. *Journal of Animal Ecology* **84**: 373-385.
- Cisneros, L.M., M.E. Fagan, and **M.R. Willig**. 2016. Environmental and spatial drivers of taxonomic, functional, and phylogenetic characteristics of bat communities in human-modified landscapes. *PeerJ* **4**: e2551.
- Cristiani, P., M. Carvalho, E. Guerrini, M. Daghigho, C. Santoro, and **B. Li**. 2013. Cathodic and anodic biofilms in single chamber microbial fuel cells. *Bioelectrochemistry* **92**: 6-13.
- Cristol, D.A., L. Savoy, W.C. Jordan, D.C. Evers, C.R. Perkins, R. Taylor, and C.W. Varian-Ramos. 2012. Mercury in waterfowl from a contaminated river in Virginia. *Journal of Wildlife Management* **76**: 1617-1624.
- Dallas, T., and S.J. Presley. 2014. Relative importance of host environment, transmission potential, and host phylogeny to the structure of parasite metacommunities. *Oikos* **123**: 866-874.
- de la Sancha, N., C.L. Higgins, S.J. Presley, and R.E. Strauss. 2014. Metacommunity structure in a highly fragmented forest: has deforestation in the Atlantic Forest altered historic biogeographic patterns? *Diversity and Distributions* **20**: 1058-1070.
- Deng, J., A. Dhummakupt, P.C. Samson, J.P. Wikswow, and **L.M. Shor**. 2013. Dynamic dosing assay relating real-time respiration responses of *Staphylococcus aureus* biofilms to changing micro-chemical conditions. *Analytical Chemistry* **85**: 5411-5419.
- Deng, J., E.P. Orner, J.F. Chau, E.M. Anderson, A.L. Kadilak, R.L. Rubinstein, G.M. Bouchillon, R. Goodwin, D.J. Gage, and **L.M. Shor**. 2015. Pore-scale determination of microbially-mediated drying resistance using emulated soil micromodels. *Soil Biology & Biochemistry* **83**: 116-124.
- Dietz, R., K. Gustavson, C. Sonne, J.P. Desforges, F.F. Rigét, V. Pavlova, **M.A. McKinney**, and R.J. Letcher. 2015. Physiologically-based pharmacokinetic modelling of immune, reproductive and carcinogenic effects from contaminant exposure in polar bears (*Ursus maritimus*) across the Arctic. *Environmental Research* **140**: 45-55.

- Dincer, K., B. Waisi, M.O. Ozdemir, U. Pasaogullari, and **J.R. McCutcheon**. 2016. Experimental investigation of proton exchange membrane fuel cells operated with nanofiber and nanofiber/nanoparticle. *International Journal of Chemical, Molecular, Nuclear, Materials, and Metallurgical Engineering* **9**: 1376-1380.
- Dodds, W.K., J.R. Webster, C.L. Crenshaw, **A.M. Helton**, J.M. O'Brien, E. Martí, A.E. Hershey, J.L. Tank, A.J. Burgin, N.B. Grimm, S.K. Hamilton, D.J. Sobota, G.C. Poole, J.J. Beaulieu, L.T. Johnson, L.R. Ashkenas, R.O. Hall, Jr., S.L. Johnson, W.M. Wollheim, and W.B. Bowden. 2014. The lotic intersite nitrogen experiments: an example of successful ecological research collaboration. *Freshwater Science* **33**: 700–710
- Doyle, M.A., **T. Bosker**, D.L. MacLachy, C.J. Martyniuk and K.R. Munkittrick. 2013. The effects of 17 α -ethinylestradiol (EE2) on molecular signaling cascades in mummichog (*Fundulus heteroclitus*). *Aquatic Toxicology* **134-135**: 34-46.
- Dreiss, L.M., K.R. Burgio, L.M. Cisneros, B.T. Klingbeil, B.D. Patterson, S.J. Presley, and **M.R. Willig**. 2015. Taxonomic, functional, and phylogenetic dimensions of rodent biodiversity along an extensive tropical elevational gradient. *Ecography* **38**: 876-888.
- Du Z., Y. Gu, **C. Zhang**, F. Zhang, R. Liu, J. Sequeira, and W. Li. 2017 ParSymG: a parallel clustering approach for unsupervised classification of remotely sensed imagery. *International of Digital Earth* **10**: 471-489.
- Du, R., S. Cao, **B. Li**, M. Niu, S. Wang, and Y. Peng. 2017. Performance and microbial community analysis of a novel DEAMOX based on partial-denitrification and anammox treating ammonia and nitrate wastewaters. *Water Research* **108**: 46-56.
- Du, R., S. Cao, **B. Li**, S. Wang, and Y. Peng. 2017. Simultaneous domestic wastewater and nitrate sewage treatment by DENitrifying AMmonium OXidation (DEAMOX) in sequencing batch reactor. *Chemosphere* **174**: 399-407.
- Du, R., Y. Peng, S. Cao, **B. Li**, S. Wang, and M. Niu. 2016. Mechanisms and microbial structure of partial denitrification with high nitrite accumulation. *Applied Microbiology and Biotechnology* **100**: 2011-2021.
- Durant, K.A., R.W. Hall, L.M. Cisneros, R.M. Hyland, and **M.R. Willig**. 2013. Reproductive phenologies of phyllostomid bats in Costa Rica. *Journal of Mammalogy* **94**: 1438-1448.
- Erfanian A., **G.L. Wang**, L. Fomenko, and M. Yu. 2017. Ensemble-based Reconstructed Forcing (ERF) for regional climate modeling: attaining the performance at a fraction of cost. *Geophysical Research Letters* **44**: 3290-3298.
- Erfanian, A., **G.L. Wang**, and L. Fomenko. 2017. Unprecedented drought over tropical South America in 2016: significantly under-predicted by tropical SST. *Scientific Reports* **7**: 5811.
- Erfanian, A., **G.L. Wang**, M. Yu, and R. Anyah. 2016. Multi-model ensemble simulations of present and future climates over West Africa: impacts of vegetation dynamics. *Journal of Advances in Modeling Earth Systems* **8**: 1411-1431.
- Fahey, R.T.** 2016. Variation in responsiveness of woody plant leaf-out phenology to anomalous spring onset. *Ecosphere* **7**: e01209.
- Fahey, R.T.** and M. Casali. 2017. Distribution of forest ecosystems over two centuries in a highly urbanized landscape. *Landscape and Urban Planning* **164**: 13-24.
- Fahey, R.T.**, A. Fotis, and K.D. Woods. 2015. Quantifying canopy complexity and effects on productivity and resilience in late-successional hemlock–hardwood forests. *Ecological Applications* **25**: 834-847.

- Fahey, R.T.**, E.J. Stuart-Haëntjens, C.M. Gough, A. De La Cruz, E. Stockton, C.S. Vogel, and P.S. Curtis. 2016. Evaluating forest subcanopy response to moderate severity disturbance and contribution to ecosystem-level productivity and resilience. *Forest Ecology and Management* **376**: 135-147.
- Feswick, A., J.S. Ings, M.A. Doyle, **T. Bosker**, K.R. Munkittrick and C.J. Martyniuk. 2014. Transcriptomics profiling and steroid production in mummichog (*Fundulus heteroclitus*) testes after treatment with 5 α -dihydrotestosterone, *General and comparative endocrinology* **203**: 106-119.
- Fu, C., **G.L. Wang**, M.L. Goulden, R.L. Scott, K. Bible, and Z.G. Cardon, 2016: Modeling the hydrological impact of hydraulic redistribution using CLM4.5 at nine AmeriFlux sites. *HESS* **20**: 2001-2018.
- Gajda, I., J. Greenman, C. Melhuish, C. Santoro, **B. Li**, P. Cristiani, and I. Ieropoulos. 2014. Water formation at the cathode and sodium recovery using Microbial fuel cells (MFCs). *Sustainable Energy Technologies and Assessments* **7**: 187-194.
- Gajda, I., J. Greenman, C. Melhuish, C.G. Santoro, **B. Li**, P. Cristiani, and I. Ieropoulos. 2015. Electro-osmotic-based catholyte production by Microbial Fuel Cells. *Water Research* **86**: 108-115.
- Ge, S., S. Wang, X. Yang, S. Qiu, **B. Li**, and Y. Peng. 2015. Detection of nitrifiers and evaluation of partial nitrification for wastewater treatment: a critical review. *Chemosphere* **140**: 85-98.
- Gilio Meina E., A. Lister, **T. Bosker**, K.R. Munkittrick, and D.L. MacLachy. 2013. Effects of 17 α -ethinylestradiol (EE2) on reproductive endocrine status in mummichog (*Fundulus heteroclitus*) under differing salinity and temperature conditions. *Aquatic Toxicology* **134-135**: 92-103.
- Glinka C.O., S. Frasca Jr., A.A. Provasas, T. Lama, S. DeGuise, and T. Bosker. 2015. The effects of model androgen 5 α -dihydrotestosterone on mummichog (*Fundulus heteroclitus*) reproduction under different salinities. *Aquatic Toxicology* **165**: 266-276.
- Gong, H., D.D. Anastasio, K. Wang, and **J.R. McCutcheon**. 2017. Finding better draw solutes for osmotic heat engines: understanding transport of ions during pressure retarded osmosis. *Desalination* **421**: 32-39.
- Gonzalez, G., **M.R. Willig**, and R.B. Waide. 2013. Ecological gradient analyses in a tropical landscape: multiple perspectives and emerging themes. *Ecological Bulletins* **54**: 13-20.
- González, G., R.B. Waide, and **M.R. Willig**. 2013. Advancements in the understanding of spatiotemporal gradients in tropical landscapes: a Luquillo focus and global perspective. *Ecological Bulletins* **54**: 245-250.
- Gu, H., Z.B. Yu, **G.L. Wang**, J.G. Wang, Q. Ju, and C.G. Yang. 2015. Impact of climate change on hydrological extremes in the Yangtze River Basin, China. *Stochastic Environmental Research and Risk Assessment* **29**: 693-707.
- Gu, H., Z.B. Yu, J.G. Wang, **G.L. Wang**, T. Yang, Q. Ju, C.G. Yang, F. Xu, and C.H. Fan. 2014: Assessing CMIP5 general circulation model simulations of precipitation and temperature over China. *International Journal of Climatology* **35**: 2431-2440.
- Guo, Y., Y. Peng, B. Wang, **B. Li**, and M. Zhao. 2016. Achieving simultaneous nitrogen removal of low C/N wastewater and external sludge reutilization in a sequencing batch reactor. *Chemical Engineering Journal* **306**: 925-932.

- Hainfeld, J.F., L. Lin, D.N. Slatkin, F.A. Dilmanian, **T.M. Vadas**, and H.M. Smilowitz. 2014. Gold nanoparticle hyperthermia reduces radiotherapy dose. *Nanomedicine: Nanotechnology, Biology, and Medicine* **10**: 1609-1617.
- Helton, A.M.**, E.S. Bernhardt, and A. Fedders. 2014. Biogeochemical regime shifts in coastal landscapes: the contrasting effects of saltwater incursion and agricultural pollution on greenhouse gas emissions from a freshwater wetland. *Biogeochemistry*. **120**: 133-147.
- Helton, A.M.**, G.C. Poole, R.A. Payn, C. Izurieta, and J.A. Stanford. 2014. Relative influences of the river channel, floodplain surface, and alluvial aquifer on simulated hydrologic residence time in a montane river floodplain. *Geomorphology* **205**: 17-26.
- Helton, A.M.**, M. Ardon, and E.S. Bernhardt. 2015. Thermodynamic constraints on the utility of ecological stoichiometry for explaining global biogeochemical patterns. *Ecology Letters* **18**: 1049-1056.
- Helton, A.M.**, M.S. Wright, E.S. Bernhardt, G.C. Poole, R.M. Cory, and J.A. Stanford. 2015. Dissolved organic carbon lability increases with water residence time in the alluvial aquifer of a river floodplain ecosystem. *Journal of Geophysical Research – Biogeosciences* **120**: 693-706.
- Hopfensperger, K.N., A.J. Burgin, V.A. Schoepfer, and **A.M. Helton**. 2014. Impacts of saltwater incursion on plant communities, anaerobic microbial metabolism, and resulting relationships in a restored freshwater wetland. *Ecosystems* **17**: 782-807.
- Hopkins, W.A., C. Bodinof, S. Budischak, and C. Perkins. 2013. Nondestructive indices of mercury exposure in three species of turtles occupying different trophic niches downstream from a former chloralkali facility. *Ecotoxicology* **22**: 22-32.
- Hu, S., S. Yang, W. Li, **C. Zhang**, and F. Xu. 2016. Spatially non-stationary relationships between urban residential land price and impact factors in Wuhan City, China. *Applied Geography* **68**: 48-56.
- Huang, L., and **J.R. McCutcheon**. 2015. Impact of support layer pore size on performance of thin film composite membranes for forward osmosis. *Journal of Membrane Science* **483**: 25-33.
- Huang, L., and **J.R. McCutcheon**. 2016. Surface modified PVDF nanofiber supported thin film composite membrane. *Journal of Membrane Science* **499**: 352-360.
- Huang, L., and **J.R. McCutcheon**. 2016. Tailored multi-zoned nylon 6,6 supported thin film composite membranes for pressure retarded osmosis. *Desalination* **399**: 96-104.
- Huang, L., J.T. Arena, S.S. Manickam, and **J.R. McCutcheon**. 2014. Improved mechanical properties and hydrophilicity of electrospun nanofiber membranes for filtration applications by dopamine modification. *Journal of Membrane Science* **460**: 241-249.
- Huang, L., N. Bui, M. T. Meyering, T.J. Hamlin, and **J.R. McCutcheon**. 2013. Novel hydrophilic nylon 6,6 microfiltration membrane supported thin film composite membranes for engineered osmosis. *Journal of Membrane Science* **437**: 141-149.
- Huang, L., N.-N. Bui, M.T. Meyering, T.J. Hamlin, and **J.R. McCutcheon**. 2013. Novel hydrophilic nylon 6,6 microfiltration membrane supported thin film composite membranes for engineered osmosis. *Journal of Membrane Science* **437**: 141-149.
- Huang, L., S.S. Manickam, and **J.R. McCutcheon**. 2013. Increasing strength of electrospun nanofiber membranes for water filtration using solvent vapor. *Journal of Membrane Science* **436**: 213-220.

- Hudson et al. (243 co-authors, including S.J. Presley and **M.R. Willig**). 2014. The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts. *Ecology and Evolution* **24**: 4701-4735.
- Hudson, L.N., et al. (510 authors, including S.J. Presley and **M.R. Willig**). 2017. The database of the PREDICTS (Projecting Responses of Ecological Diversity in Changing Terrestrial Systems) Project. *Ecology and Evolution* **7**: 145-188.
- Ji, Z.M., **G.L. Wang**, J.S. Pal, and M. Yu. 2015. Potential climate effect of mineral aerosols over West Africa, Part I: model validation and contemporary climate evaluation. *Climate Dynamics* **46**: 1223-1239.
- Ji, Z.M., **G.L. Wang**, M. Yu, and J.S. Pal. 2015. Potential climate effect of mineral aerosols over West Africa, Part II: Impact of aerosols and land use on future climate. *Climate Dynamics* doi: 10.1007/s00382-015-2792-x.
- Jia, F., Q. Yang, X. Liu, X. Li, **B. Li**, L. Zhang, and Y. Peng. 2017 Stratification of Extracellular Polymeric Substances (EPS) for aggregated anammox microorganisms. *Environmental Science and Technology* **51**: 3260-3268.
- Jiang, Y., and **S.K. Swallow**. 2014. Providing an ecologically sound community landscape at the urban-rural fringe: a conceptual, integrated model. *Journal of Land Use Science* **10**: 323-341.
- Jiang, Y., and **S.K. Swallow**. 2017. Impact fees coupled with conservation payments to sustain ecosystem structure: a conceptual and numerical application at the urban-rural fringe. *Ecological Economics* **136**: 136-147.
- Jin, B., S. Wang, L. Xing, **B. Li**, and Y. Peng. 2016. Effect of salinity on enhancing waste activated sludge alkaline fermentation at different temperatures. *CLEAN Soil, Air, Water* **44**: 1750-1758.
- Jin, B., S. Wang, L. Xing, **B. Li**, and Y. Peng. 2016. Long term effect of alkali types on waste activated sludge hydrolytic acidification and microbial community at low temperature. *Bioresource Technology* **200**: 587-597.
- Jin, J., W. Wang, L. Xing, **B. Li**, and Y. Peng. 2016. The effect of salinity on waste activated sludge alkaline fermentation and kinetic analysis. *Journal of Environmental Sciences* **43**: 80-90.
- Johnston, R.J., **S.K. Swallow**, D.M. Bauer, E. Uchida, and C.M. Anderson. 2014. Connecting ecosystem services to land use: implications for valuation and policy. Pages 196-225 *in* J.M. Duke and J.J. Wu, editors. *The Oxford Handbook of Land Economics*, Oxford University Press, New York, New York.
- Kadilak, A.L., Y. Liu, **L.M. Shor**, and W. Mustain. 2015. In situ oxygen gradient generation inside a termite-inspired microfluidic habitat. *ECS Transactions* **66**: 1-5.
- Kadilak, A.L., Y. Liu, S. Shrestha, J.R. Bernard, W.E. Mustain, and **L.M. Shor**. 2014. Selective deposition of chemically-bonded gold electrodes onto PDMS microchannel side walls. *Journal of Electroanalytical Chemistry* **727**: 141-147.
- Kafle, A., **S.K. Swallow**, and E.C. Smith. 2015. Does public funding affect preferred tradeoffs and crowd-in or crowd-out willingness to pay? A watershed management case. *Environmental and Resource Economics* **60**: 471-495.
- Kanjilal, B., I. Noshadi, **J.R. McCutcheon**, A., Asandei, and R.S. Parnas. 2015. Allylcyclohexylamine functionalized siloxane polymer and its phase separated blend as pervaporation membranes for 1,3-propanediol enrichment from binary aqueous mixtures. *Journal of Membrane Science* **486**: 59-70.

- Karouna-Renier, N., C. White, C.R. Perkins, J.J. Schmerfeld, and D. Yates. 2014. Assessment of mitochondrial DNA damage in little brown bats (*Myotis lucifugus*) collected near a mercury-contaminated river. *Ecotoxicology* **23**: 1419-1429.
- Karra, U., E. Muto, R. Umaz, M. Kölln, C. Santoro, L. Wang, and **B. Li**. 2014. Performance evaluation of activated carbon-based electrodes with novel power management system for long-term benthic microbial fuel cell. *International Journal of Hydrogen Energy* **39**: 21847-21856.
- Karra, U., E. Troop, M. Curtis, K. Scheible, C. Tenaglier, N. Patel, and **B. Li**. 2013. Performance of plug flow microbial fuel cell (PF-MFC) and complete mixing microbial fuel cell (CM-MFC) for wastewater treatment and power generation. *International Journal of Hydrogen Energy* **38**: 5383-5388.
- Karra, U., S.S. Manickam, **J.R. McCutcheon**, N. Patel, and **B. Li**. 2012. Power generation and organics removal from wastewater using activated carbon nanofiber (ACNF) microbial fuel cells (MFCs). *International Journal of Hydrogen Energy* **38**: 1588-1697.
- Kim, J.H., Y.J. Kim, and **G.L. Wang**. 2017. Impacts of boundary condition changes on regional climate projections over West Africa, *Journal of Geophysical Research - Atmospheres* **122**: 5600-5615.
- Kim, Y.J., and **G.L. Wang**. 2012. Soil moisture-vegetation-precipitation feedback over North America: its sensitivity to soil moisture climatology. *Journal of Geophysical Research – Atmosphere* **117**: D18115.
- Klimas C., A. Williams, M. Hoff, **B.A. Lawrence**, J. Thompson, and J. Montgomery. 2016. Valuing ecosystem services and disservices across heterogeneous urban green spaces. *Sustainability* **8**: 853.
- Klingbeil, B.T., and **M.R. Willig**. 2015. Bird biodiversity assessments in temperate forest: The value of point count versus acoustic monitoring protocols. *PeerJ* **3**: e973.
- Klingbeil, B.T., and **M.R. Willig**. 2016. Community assembly in temperate forest birds: habitat filtering, interspecific interactions, and priority effects. *Evolutionary Ecology* **30**: 703-722.
- Klingbeil, B.T., and **M.R. Willig**. 2016. Matrix composition and landscape heterogeneity structure multiple dimensions of biodiversity in temperate forest birds. *Biodiversity and Conservation* **25**: 2687-2708.
- Koster, R.D. et al. (including **G.L. Wang**) 2017. Hydroclimatic variability and predictability: a Survey of recent research. *Hydrology and Earth System Sciences* doi: 10.5194/hess-2017-122.
- Lancaster, N., J. Bushey, C. Tobias, B. Song, **T.M. Vadas**. 2016. Impact of salt on denitrification in roadside environments. *Environmental Pollution* **212**: 216-223.
- Lawrence, B.A.**, K. Burke, S.C. Lishawa, and N.C. Tuchman. 2016. *Typha* invasion associated with reduced aquatic macroinvertebrate abundance in northern Lake Huron coastal wetlands. *Journal of Great Lakes Research* **42**: 1412-1419.
- Lawrence, B.A.**, S.C. Lishawa, N. Hurst, B.T. Castillo, and N.C. Tuchman. 2017. Wetland invasion by *Typha x glauca* increases soil methane emissions. *Aquatic Botany* **137**: 80-87.
- Lawrence, B.A.**, S.C. Lishawa, Y. Rodriguez, and N.C. Tuchman. 2016. Herbicide management of invasive cattail (*Typha x glauca*) increases porewater nutrient concentrations. *Wetlands Ecology and Management* **24**: 457-467.

- Lee S.G., K. Kim, T.V. Vance, C.R. Perkins, A.A. Provasas, S. Wu, A. Qureshi, E. Cho, and O.K. Chun. 2016. Development of a comprehensive analytical method for furanocoumarins in grapefruit and their metabolites in plasma and urine using UPLC-MS/MS: a preliminary study. *International Journal of Food Sciences and Nutrition* **67**: 881-887.
- Letcher, R.J., S. Chu, **A.A. McKinney**, G.T. Tomy, C. Sonne, and R. Dietz. 2014. Comparative hepatic in vitro depletion and metabolite formation of major perfluorooctane sulfonate precursors in polar bear, beluga whale and ringed seal. *Chemosphere* **112**: 225-231.
- Levin, M., T. Romano, K. Matassa, and S. De Guise. 2014. Validation of a commercial canine assay kit to measure pinniped cytokines. *Veterinary Immunology and Immunopathology* **160**: 90-96.
- Li, B.**, L. Wang, and J. Cui. 2014. Marine sediment energy harvesting for sustainable underwater sensor networks. Pages 275-302 *in* J. Chen, S. He, and Y. Sun, editors. *Rechargeable Sensor Networks: Technology, Theory and Application*, World Scientific Publishing.
- Li, B., X. Zhou, M. Wang, X. Wang, B.G. Liu, and **B. Li**. 2015. Pyrolyzed binuclear-cobalt-phthalocyanine as electrocatalyst for oxygen reduction reaction in microbial fuel cells. *Bioresource Technology* **193**: 545-548.
- Li, B., X. Zhou, X. Wang, B. Liu, and **B. Li**. 2014. Hybrid binuclear-cobalt-phthalocyanine as oxygen reduction reaction catalyst in single chamber microbial fuel cells. *Journal of Power Sources* **272**: 320-327.
- Li, W., and **C. Zhang**. 2013. Some further clarification on Markov chain random fields and transiograms. *International Journal of Geographical Information Science* **27**: 423-430.
- Li, W., and **C. Zhang**. 2017. Comments on "Spatial hidden Markov chain models for estimation of petroleum reservoir categorical variables". *Journal of Petroleum Exploration and Production Technology* **7**: 905-909.
- Li, W., **C. Zhang**, D.K. Dey, and **M.R. Willig**. 2013. Updating categorical soil maps using limited survey data by Bayesian Markov chain co-simulation. *The Scientific World Journal* **2013**: 587284.
- Li, W., **C. Zhang**, **M.R. Willig**, D.K. Dey, **G. Wang**, and L. You. 2014. Bayesian Markov chain random field cosimulation for improving land cover classification accuracy. *Mathematical Geosciences* **47**: 123-148.
- Li, X., **C. Zhang**, W. Li, and Y.A. Kuzovkina. 2016. Environmental inequities in terms of different types of urban greenery in Hartford, Connecticut. *Urban Forestry and Urban Greening* **18**: 163-172.
- Li, X., **C. Zhang**, W. Li, R. Ricard, Q. Meng, and W. Zhang. 2015. Assessing street-level urban greenery using Google street view and a modified green view index. *Urban Forestry & Urban Greening* **14**: 675-685.
- Li, X., **C. Zhang**, W. Li, Y. Kuzovkina, and D. Weiner. 2015. Who lives in greener neighborhoods? The distribution of street greenery and its association with residents' socioeconomic conditions in Hartford, Connecticut, USA. *Urban Forestry & Urban Greening* **14**: 751-759.
- Li, X., Q. Meng, W. Li, **C. Zhang**, T. Jansco, and S. Mavromatis. 2014. An explorative study on the proximity of buildings to green spaces in urban areas using remotely sensed imagery. *Annals of GIS* **20**: 193-203.

- Li, X., W. Li, Q. Meng, **C. Zhang**, T. Jansco and K. Wu. 2016. Modelling building proximity to greenery in a three-dimensional perspective using multi-source remotely sensed data. *Journal of Spatial Science* **61**: 389-403.
- Li, Y. G, I. Williams, Z.G. Xu, **B. Li**, and B. Li. 2016. Energy-positive nitrogen removal using the integrated short-cut nitrification and autotrophic denitrification microbial fuel cells (MFCs). *Applied Energy* **163**: 352-360.
- Li, Y., J. Styczynski, Y. Huang, Z. Xu, **J.R. McCutcheon**, and **B. Li**. 2017. Energy-positive wastewater treatment and desalination in an integrated microbial desalination cell (MDC)-microbial electrolysis cell (MEC). *Journal of Power Sources* **356**: 529-538.
- Li, Y., Y. Wu, S. Puranik, Y. Lei, **T. Vadas**, and **B. Li**. 2014. Metals as electron acceptors in single-chamber microbial fuel cells. *Journal of Power Sources* **269**: 430-439.
- Li, Y., Z. Xu, D. Cai, B. Holland, and **B. Li**. 2016. Self-sustained high-rate anammox: from biological to bioelectrochemical processes. *Royal Society of Chemistry* **2**: 1022-1031.
- Li, Y.G, Y. Wu, B.G. Liu, H. Luan, **T. Vadas**, W. Guo, J. Ding, and **B. Li**. 2015. Self-sustained reduction of multiple metals in a microbial fuel cell-microbial electrolysis cell hybrid system. *Bioresource Technology* **192**: 238-246.
- Li, Z., C.M. Anderson, and **S.K. Swallow**. 2016. Uniform price mechanisms for threshold public goods provision with complete information: an experimental investigation. *Journal of Public Economics* **144**: 14-26.
- Liao, W.L., D.G. Wang, X.P. Liu, **G.L. Wang**, and J.B. Zhang. 2016. Estimated influence of urbanization on surface warming in eastern China using time-varying land use data. *International Journal of Climatology* **37**: 3197-3208.
- Lin, J., R. Cromley, D. Civco, D. Hanink, and **C. Zhang**. 2013. Evaluating the use of publicly available remotely sensed land cover data for areal interpolation. *GIScience & Remote Sensing* **50**: 212-230.
- Lishawa, S., **B.A. Lawrence**, D. Albert, and N. Tuchman. 2015. Biomass harvest of invasive *Typha* promotes plant diversity in a Great Lakes coastal wetland. *Restoration Ecology* **23**: 228-237.
- Liu, B., A. Weinstein, M. Kolln, C. Garrett, L. Wang, A.C. Bagtzoglou, U. Karra, Y. Li, and **B. Li**. 2015. Distributed multi-anodes benthic microbial fuel cell as reliable power source for subsea sensors. *Journal of Power Sources* **286**: 210-216.
- Liu, B., C. Brueckner, Y. Lei, Y. Cheng, C. Santoro, and **B. Li**. 2014. Cobalt Porphyrin-based Material as Methanol-tolerant Cathode in Single Chamber Microbial Fuel Cells (SCMFCs). *Journal of Power Sources* **257**: 246-253.
- Liu, B., I. Williams, Y. Li, L. Wang, A.C. Bagtzoglou, **J.R. McCutcheon**, and **B. Li**. 2016. Towards high power output of scaled-up benthic microbial fuel cells (BMFCs) using multiple electron collectors. *Biosensors and Bioelectronics* **79**: 435-441.
- Liu, B., K. Christiansen, R. Parnas, and **B. Li**. 2013. Optimizing the production of hydrogen and 1, 3-propanediol in anaerobic fermentation of biodiesel glycerol. *International Journal of Hydrogen Energy* **38**: 3196–3205.
- Liu, B., Y. Lei, and **B. Li**. 2014. A batch-mode cube microbial fuel cell based “shock” biosensor for wastewater quality monitoring. *Biosensors and Bioelectronics* **62**: 308-314.
- Liu, B.G, I. Williams, Y.G. Li, L. Wang, A. Bagtzoglou, **J. McCutcheon**, and **B. Li**. 2016. Towards high power output of scaled-up benthic microbial fuel cells (BMFCs) using multiple electron collectors. *Biosensor & Bioelectronics* **79**: 435-441.

- Liu, D., **G.L. Wang**, R. Mei, Z.B. Yu, and H.H. Gu. 2014. Diagnosing soil moisture-atmosphere feedback at the seasonal and sub-seasonal time scales in Asia. *Journal of Hydrometeorology* **15**: 320-339.
- Liu, D., **G.L. Wang**, Z.B. Yu, and R. Mei. 2014. Impact of soil moisture anomalies on climate mean and extremes in Asia. *JGR-Atmospheres* **119**: 529-545.
- Liu, P., and **S.K. Swallow**. 2016. Integrating co-benefits produced with water quality BMPs into credit markets: conceptualization and experimental illustration for EPRI's Ohio River Basin trading. *Water Resources Research* **52**: 3387-3407.
- Liu, P., **S. Swallow**, and C. Anderson. 2016. Threshold level public goods provision with multiple units: experimental effects of disaggregated groups with rebates. *Land Economics* **92**: 515-533.
- Liu, Y., Y. Ding, H. Gao, L. Zhang, P. Gao, **B. Li**, and Y. Lei. 2012. La_{0.67}Sr_{0.33}MnO₃ nanofibers for in situ, real-time, and stable high temperature oxygen sensin. *RSC Advances* **2**: 3872-3877.
- López-González, C., **S.J. Presley**, A. Lozano, R.D. Stevens, and C.L. Higgins. 2015. Ecological biogeography of Mexican bats: the relative contributions of habitat heterogeneity, beta diversity, and environmental gradients to species richness and composition patterns. *Ecography* **38**: 261-272.
- Luan, H., and **T.M. Vadas**. 2015. Size characterization of dissolved metals and organic matter in source waters to streams in developed landscapes. *Environmental Pollution* **197**: 76-83.
- Luhr, R., D. Reimanis, R. Cross, C. Izurieta, G.C. Poole, **A.M. Helton**. 2013. Natural science visualization using Digital Theater Software: adapting existing planetarium software to model ecological systems. *Proceedings of the International Conference on Information Science and Applications* doi: 10.1109/ICISA.2013.6579381.
- Ma, B., Y. Peng, Y. Wei, **B. Li**, P. Bao, and Y. Wang. 2015. Free nitrous acid pretreatment of wasted activated sludge to exploit internal carbon source for enhanced denitrification. *Bioresource Technology* **179**: 20-25.
- Mackay, A.A.**, and D. Vasudevan. 2012. Polyfunctional ionogenic compound sorption: challenges and new approaches to advance predictive models. *Environmental Science & Technology* **46**: 9209-9223.
- Mackay, A.A.**, P. Gan, R. Yu, and B.F. Smets. 2013. Seasonal arsenic accumulation in stream sediments at a groundwater discharge zone. *Environmental Science & Technology* **48**: 920-929.
- Manickam, S., **J.R. McCutcheon**, and G. Ramon. 2017. Modelling the effect of film-pore coupled transport on composite forward osmosis membrane performance. *Journal of Membrane Science* **523**: 533-541.
- Manickam, S.S., and **J.R. McCutcheon**. 2012. Characterization of polymeric nonwovens using porosimetry, porometry and X-ray computed tomography. *Journal of Membrane Science* **407-408**: 108-115.
- Manickam, S.S., and **J.R. McCutcheon**. 2014. Pore structure characterization of asymmetric membranes: non-destructive characterization of porosity and tortuosity. *Journal of Membrane Science* **545**: 549-554.

- Manickam, S.S., and **J.R. McCutcheon**. 2015. Model thin film composite Membranes for forward osmosis: Demonstrating the inaccuracy of existing structural parameter Models. *Journal of Membrane Science* **483**: 70-74.
- Manickam, S.S., and **J.R. McCutcheon**. 2017. Understanding mass transfer through asymmetric membranes during forward osmosis: a historical perspective and critical review on measuring structural parameter. *Desalination* **421**: 110-126.
- Manickam, S.S., U. Karra, L. Huang, N.-N. Bui., **B. Li**, and **J.R. McCutcheon**. 2012. Activated carbon nanofiber anodes for microbial fuel cells. *Carbon* **53**: 19-28.
- Martino, J., S.S. Wise, C. Perkins, M. Sironi, and J.P. Wise, Sr. 2014. Metal levels in Southern Right Whales (*Eubalaena australis*) from Península Valdés, Argentina. *Journal of Environmental and Analytical Toxicology* **3**: 190.
- Martins, A.C.M., **M.R. Willig**, S.J. Presley, and J. Marinho-Filho. 2017. Effects of forest height and vertical complexity on abundance and biodiversity of bats in Amazonia. *Forest Ecology and Management* **391**: 427-435.
- McCutcheon, J.R.**, and L. Huang. 2013. Forward osmosis. In E. M. V. Hoek and V. V. Tarabara, editors. *Encyclopedia of Membrane Technology*, Wiley, doi: 10.1002/9781118522318.emst081.
- McCutcheon, J.R.**, and N. Bui. 2014. Forward osmosis. Pages 255-286 in J. Kucera, editor. *Desalination: Water from Water*, Scrivener Publishing, Beverly, Massachusetts.
- McInerney, E., and **A.M. Helton**. 2016. The effects of soil moisture and emergent herbaceous vegetation on carbon emissions from constructed wetlands. *Wetlands* **36**: 275-284.
- McKinney, M.A.**, K. Dean, N.E. Hussey, G. Cliff, S.P. Wintner, S.F.J. Dudley, M.P. Zungu, and A.T. Fisk. 2016. On the causes and implications of high mercury levels in sharks from the east coast of South Africa. *Science of the Total Environment* **541**: 176-183.
- McKinney, M.A.**, S. Pedro, R. Dietz, C. Sonne, A.T. Fisk, **D. Roy**, B.M. Jenssen, and R.J. Letcher. 2015. A review of ecological impacts of global climate change on persistent organic pollutant and mercury pathways and exposures in arctic marine ecosystems. *Current Zoology* **61**: 617-628.
- McKinney, M.A.**, T.C. Atwood, S. Pedro, and E. Peacock. 2017. Ecological change drives a decline in mercury concentrations in southern Beaufort Sea polar bears. *Environmental Science and Technology* **51**: 7814-7822.
- McKinney, M.A.**, T.C. Atwood, S.J. Iverson, and E. Peacock. 2017. Seasonal and temporal complexity of southern Beaufort Sea polar bear diets during a period of increasing land use. *Ecosphere* **8**: e01633.
- Mehring, A.S., R.R. Lowrance, **A.M. Helton**, G. Vellidis, C.M. Pringle, and D.D. Bosch. 2013. Inter-annual drought length governs dissolved organic carbon dynamics in blackwater rivers of the western upper Suwannee River basin. *Journal of Geophysical Research: Biogeosciences* **118**: 1636-1645.
- Mei, R., and **G.L. Wang**. 2012. Summer land-atmosphere coupling strength in the United States: comparison among observations, reanalysis data and numerical models. *Journal of Hydrometeorology* **13**: 1010-1022.
- Mei, R., **G.L. Wang**, and H.H. Gu. 2013. Land-atmosphere coupling and its contribution to sub-seasonal predictability and prediction in the United States: results from a regional climate model. *Journal of Hydrometeorology* **14**: 946-962.

- Melough M.M., T.M. Vance, S.G. Lee, A.A. Provasas, C.R. Perkins, A. Qureshi, E. Cho, and O.K. Chun. 2017. Furocoumarin kinetics in plasma and urine of healthy adults following consumption of grapefruit (*Citrus paradisi* Macf.) and grapefruit juice. *Journal of Agriculture and Food Chemistry* **65**: 3006-3012.
- Meyer, C.F., M.J. Struebig, and **M.R. Willig**. 2016. Responses of tropical bats to habitat fragmentation, logging, and deforestation. Pages 63-104 *in* C.C. Voigt and T. Kingston, editors. *Bats in the Anthropocene: Conservation of Bats in a Changing World*. Springer.
- Miao, L., S. Wang, **B. Li**, T. Cao, F. Zhang, Z. Wang, and Y. Peng. 2016. Effect of carbon source type on intracellular stored polymers during endogenous denitrification (ED) treating landfill leachate. *Water Research* **100**: 405-412.
- Miao, L., S. Wang, **B. Li**, T.C., T. Xue, and Y. Peng. 2015. Advanced nitrogen removal via nitrite using stored polymers in a modified sequencing batch reactor treating landfill leachate. *Bioresource Technology* **192**: 354-360.
- Miao, Y., L. Zhang, **B. Li**, Q. Zhang, S. Wang, and Y. Peng. 2017 Enhancing ammonium oxidizing bacteria activity was key to single-stage partial nitrification-anammox system treating low-strength sewage under intermittent aeration condition. *Bioresource Technology* **231**: 36-44.
- Miao, Y., L. Zhang, Y. Yang, Y. Peng, **B. Li**, S. Wang, and Q. Zhang. 2016. Start-up of single-stage partial nitrification-anammox process treating low-strength swage and its restoration from nitrate accumulation. *Bioresource Technology* **218**: 771-779.
- Morris, A.D., D.C.G. Muir, K.R.S. Solomon, R.J. Letcher, **M.A. McKinney**, A.T. Fisk, B.C. McMeans, C. Teixeira, X. Wang, and M. Duric. 2016. Current-use pesticides in seawater and their bioaccumulation behavior in polar bear-ringed seal food chains of the Canadian Arctic. *Environmental Toxicology and Chemistry* **35**: 1695-1707.
- Newell, L.W., and **S.K. Swallow**. 2013. Real-payment choice experiments: valuing forested wetlands and spatial attributes within a landscape context. *Ecological Economics* **92**: 37-47.
- Noshadi I., B. Kanjilal, S. Du, G.M. Bollas, S. L. Suib, A.A. Provasas, F. Liu, and R.S. Parnas. 2014. Catalyzed production of biodiesel and bio-chemicals from brown grease using Ionic Liquid functionalized ordered mesoporous polymer. *Applied Energy* **129**: 112-122.
- Panchen, Z.A., R. Primack, A. Gallinat, B. Nordt, A.D. Stevens, Y. Du., **R.T. Fahey**. 2015. Substantial variation in leaf senescence times among 1360 temperate woody plant species: implications for phenology and ecosystem processes. *Annals of Botany* **116**: 865-873.
- Parr, D.T., and **G.L. Wang**. 2014: Hydrological changes in the U.S. Northeast using the Connecticut River Basin as a case study: Part 1. Modeling and analysis of the past. *Global and Planetary Change* **122**: 208-222.
- Parr, D.T., **G.L. Wang**, and C.S. Fu. 2016. Understanding evapotranspiration trends and their driving mechanisms over the NLDAS domain based on numerical modeling. *JGR-Atmospheres* **121**: 7729-7745.
- Parr, D.T., **G.L. Wang**, and C.S. Fu. 2016. Understanding evapotranspiration trends and their driving mechanisms over the NLDAS domain based on numerical modeling using CLM4.5. *JGR-Atmospheres* **121**: 7729-7745.
- Parr, D.T., **G.L. Wang**, and D. Bjerklie. 2015. Integrating remote sensing data on evapotranspiration and leaf area index with hydrological modeling: impacts on model performance and future predictions. *Journal of Hydrometeorology* **16**: 2086-2100.

- Parr, D.T., **G.L. Wang**, and K.F. Ahmed. 2015. Hydrological changes in the U.S. Northeast using the Connecticut River Basin as a case study: Part 2. Projections of the future. *Global and Planetary Change* **133**: 167-175.
- Paruk, J.D., D. Long, C. Perkins, A. East, B. Sigel, and D. Evers. 2014. Polycyclic aromatic hydrocarbons detected in Common Loons (*Gavia immer*) wintering off coastal Louisiana. *Waterbirds* **37**: 85-93.
- Paruk, J.D., E.M. Adams, H. Uher-Kich, K.A. Kovach, D. Long, C.R. Perkins, N. Soch, and D.C. Evers. 2016. Polycyclic aromatic hydrocarbons in blood related to lower body mass in common loons. *Science of the Total Environment* **565**: 360-368.
- Pasaogullari, U., C. Santoro, M. Cremins, U. Pasaogullari, M. Guilizzoni, A. Casalegno, and **B. Li**. 2014. Evaluation of water transport and oxygen presence in single chamber microbial fuel cells with carbon-based cathodes. *Journal of the Electrochemical Society* **160**: G3128-G3134
- Payn, R.A., **A.M. Helton**, G.C. Poole, C. Izurieta, E.S. Bernhardt, and A.J. Burgin. 2014. A generalized model of aquatic microbial metabolism based on thermodynamic, kinetic, and stoichiometric theory. *Ecological Modelling*. **294**: 1-18.
- Pedro, S., C. Boba, R. Dietz, C. Sonne, A. Rosing-Asvid, M. Hansen, A. Provatas, and **M.A. McKinney**. 2017. Blubber-depth distribution and bioaccumulation of PCBs and OC pesticides in Arctic-invading killer whales. *Science of the Total Environment* **601-602**: 237-246.
- Pfeifer M., V. Lefebvre, L. Baeten, C. Banks-Leit, J. Barlow, M.G. Betts, J. Brunet, A. Cerezo, L.M. Cisneros, S. Collard, N. D’Cruze, C. da Silva Motta, S. Duguay, H. Eggermont, F. Eigenbrod, T.A. Gardner, A.S. Hadley, T.R. Hanson, J.E. Hawes, T. Heartsill, B.T. Klingbeil, A. Kolb, U. Kormann, T. Lachat, P. Lakeman Fraser, V. Lantschner, W.F. Laurance, L. Lens, A. Lugo, C. Marsh, G.F. Medina-Rangel, S. Melles, D. Mezger, W.L. Overall, C. Owen, C.A. Peres, B. Phalan, A Pidgeon, O. Pilia, H.P. Possingham, M.L. Possingham, D.C. Raheem, D.B. Ribeiro, W.D. Robinson, R. Robinson, T. Rytwinski, C. Scherber, E.M. Slade, E. Somarriba, P. Stouffer, M.J. Struebig, J. Tylianakis, T. Tschardtke, A.C. Tyre, J.N. Urbina Cardona, H.L. Vasconcelos, K. Wells, **M.R. Willig**, .E Wood, R.P. Young, A.V. Bradley, and R. Ewers. 2014. BIOFRAG—A new database for analyzing BIOdiversity responses to forest FRAGmentation. *Ecology and Evolution* **4**: 1524-1537.
- Potter, J.D., W.H. McDowell, M.L. Daley, and **A.M. Helton**. 2013. Incorporating urban infrastructure into biogeochemical assessment of urban tropical streams in Puerto Rico. *Biogeochemistry* **121**: 271-286.
- Prates, M.O., D.K. Dey, **M.R. Willig**, and J. Yan. 2015. Transformed Gaussian Markov random fields and spatial modeling of species abundance. *Spatial Statistics* **14**: 382-399.
- Pratt, L., T. Pinnock, K. Amoa, K. Akther, J. Domond, R. Gordon, K. Loriston, J. Strothers, A. Toney, H. Rizvi, M. Gunasekaran, I. Noshadi, R. Parnas, R., and A.A. Provatas. 2014. Beneficial use of brown grease—a green source of petroleum-derived hydrocarbons. *Journal of the NEWEA* **48**: 44-53.
- Presley, S.J., L.M. Cisneros, **M.R. Willig**, and B.D. Patterson. 2012. Vertebrate metacommunity structure along an extensive elevational gradient in the tropics: a comparison of bats, rats, and birds. *Global Ecology and Biogeography* **21**: 968-979.
- Presley, S.J., S.M. Scheiner, and **M.R. Willig**. 2014. Evaluation of an integrated framework for biodiversity with a new metric for functional dispersion. *PLoS ONE* **9(8)**: e105818.

- Presley, S.J., T. Dallas, B.T. Klingbeil, and **M.R. Willig**. 2015. Phylogenetic signals in host-parasite associations for Neotropical bats and Nearctic desert rodents. *Biological Journal of the Linnean Society* **116**: 312–347.
- Provatias A.A., A.V. Yeudakimau, C.A. King, E.L. Gatley, J.D. Stuart, D.C. Evers, and C.R. Perkins. 2015. Rapid QuEChERS Extraction with novel phospholipid cleanup: a streamlined UHPLC-UV approach for screening PAHs in avian blood cells and plasma. *Journal of Separation Science* **38**: 2677-2683.
- Provatias A.A., A.V. Yeudakimau, J.D. Stuart, and C.R. Perkins. 2014. Rapid QuEChERS extraction followed by a novel phospholipid SPE sample purification for the analysis of selected insecticides in lobster and shellfish tissues using gas chromatography tandem mass spectrometry. *Analytical Letters* **47**: 2461-2474.
- Provatias A.A., C.A. King, S.L. Kolakowski, J.D. Stuart, and C.R. Perkins. 2017. Quantification of polycyclic aromatic hydrocarbons in avian dried blood spots by high-performance liquid chromatography with simple liquid extraction and phospholipid solid-phase extraction preparation. *Analytical Letters* **50**: 2649-2660.
- Provatias A.A., G.A. Epling, and J.D. Stuart. 2016. Synthesis and photocleavage of quinoline methyl ethers: a mild and efficient method for the selective protection and deprotection of the alcohol functionality. *Australian Journal of Chemistry* **69**: 763-769.
- Provatias A.A., S.L. Kolakowski, L.C. Bodhipaksha, A.S. Bell, J.D. Stuart., and C.R. Perkins. 2016. Rapid analysis of glyphosate and its degradation products in surface water using UPLC-MS in selected ion recording mode. *International Labmate, Chromatography Feature Article*.
- Provatias A.A., A.V. Yeudakimau, C.A. King, E.L. Gatley, J.D. Stuart, D.C. Evers, and C.R. Perkins. 2015. Rapid QuEChERS extraction with novel phospholipid cleanup: a streamlined UHPLC-UV approach for screening PAHs in avian blood cells and plasma. *Journal of Separation Science* **38**: 2677–2683.
- Provatias A.A.., A.V. Yeudakimau, E.L. Gatley, E.R. Guerrera, J.D. Stuart, and C.R. Perkins. 2014. Rapid screening and quantitative determination of selected algal toxins in surface water samples by direct evaporation and UPLC-MS/MS analysis. *Trends in Chromatography* **9**: 29-37.
- Provatias A.A., G.A. Epling, J.D. Stuart, and A.V. Yeudakimau. 2015. Regioselective dye-induced photocleavage of epoxides as an alternative mild synthetic route to a targeted alcohol functionality. *Australian Journal of Chemistry* **68**: 500-504.
- Provatias A.A., G.A. Epling, J.D. Stuart, and A.V. Yeudakimau. 2014. Selective photoreduction of acetonitrile to acetaldehyde in dilute aqueous solutions. *Toxicological and Environmental Chemistry* **96**: 353-361.
- Qu M., W. Li, **C. Zhang**, B. Huang, and Y. Zhao. 2015. Assessing the pollution risk of soil Chromium based on loading capacity of paddy soil at a regional scale. *Scientific Reports* **5**: 18451.
- Qu M., W. Li, **C. Zhang**, B. Huang, and Y. Zhao. 2016. Spatial assessment of soil nitrogen availability and varying effects of related main soil factors on soil available nitrogen. *Environmental Science: Processes & Impacts* **18**: 1449-1457.
- Qu, M., B. Huang, W. Li, **C. Zhang**, and Y. Zhao. 2015. Spatial uncertainty of joint health risk of multiple trace metals in rice grain in Jiaxing city, China. *Environmental Science: Processes & Impacts* **17**: 120-30.

- Qu, M., W. Li, and **C. Zhang**. 2013. Assessing the risk costs in delineating soil nickel contamination using sequential Gaussian simulation and transfer functions. *Ecological Informatics* **13**: 99-105.
- Qu, M., W. Li, and **C. Zhang**. 2013. Assessing the spatial uncertainty in soil nitrogen mapping through stochastic simulations with categorical land use information. *Ecological Informatics* **16**: 1-9.
- Qu, M., W. Li, and **C. Zhang**. 2014. County-Scale Spatial Variability of Macronutrient Availability Ratios in Paddy Soils. *Applied and Environmental Soil Science* **2014**: 689482
- Qu, M., W. Li, and **C. Zhang**. 2014. Spatial distribution and uncertainty assessment of potential ecological risks of soil heavy metals using sequential Gaussian simulation. *Human and Ecological Risk Assessment: an International Journal* **20**: 764-778.
- Qu, M., W. Li, **C. Zhang**, and B. Huang. 2014. Geographically Weighted Regression and Its Application Prospect in Environmental and Soil Sciences. *Soils* **46**: 15–22.
- Qu, M., W. Li, **C. Zhang**, B. Huang, and W. Hu. 2013. Source apportionment of soil heavy metal Cd based on the combination of receptor model and geostatistics. *China Environmental Science* **33**: 854-860.
- Qu, M., W. Li, **C. Zhang**, B. Huang, and Y. Zhao. 2014. Estimating the pollution risk of cadmium in soil using a composite soil environmental quality standard. *The Scientific World Journal* **2014**: 750879.
- Qu, M., W. Li, **C. Zhang**, B. Huang, and Y. Zhao. 2015. An investigation of the spatially non-stationary relationships between Cu accumulation in rice grain and some related soil properties in paddy fields at a regional scale. *Soil Science Society of America Journal* **78**: 1765-1774.
- Qu, M., W. Li, **C. Zhang**, S. Wang, Y. Yang and L. He. 2013. Source apportionment of heavy metals in soils using multivariate statistics and geostatistics. *Pedosphere* **23**: 437-444.
- Qu, M., W. Li, **C. Zhang**, Y. Zhao, B. Huang, W. Sun, and W. Hu. 2013. Comparison of three methods for soil fertility quality spatial simulation with uncertainty assessment. *Soil Science Society of America Journal* **77**: 2182-2191.
- Ravishanker, N., V. Serhiyenko, and **M.R. Willig**. 2014. Hierarchical dynamic models for multivariate time series counts. *Statistics and Its Interface* **7**: 559-570.
- Reimund, K.K., B.J. Coscia, J.T. Arena, A.D. Wilson, and **J.R. McCutcheon**. 2016. Characterization and membrane stability study for the switchable polarity solvent N,N-Dimethylcyclohexylamine as a draw solute in forward osmosis. *Journal of Membrane Science* **501**: 93–99.
- Reimund, K.K., **J.R. McCutcheon**, and A.D. Wilson. 2015. Thermodynamic analysis of energy density in pressure retarded osmosis: The impact of solution volumes and costs. *Journal of Membrane Science* **487**: 240-248.
- Ren, J., and **J.R. McCutcheon**. 2014. A new commercial thin film composite membrane for forward osmosis. *Desalination* **343**: 187-193
- Ren, J., and **J.R. McCutcheon**. 2015. Polyacrylonitrile Supported Thin Film Composite Hollow Fiber Membranes for Forward Osmosis. *Desalination* **372**: 67-74.
- Ren, J., and **J.R. McCutcheon**. 2017. Making thin film composite hollow fiber forward osmosis membranes at the module scale using commercial ultrafiltration membranes. *Industrial & Engineering Chemistry Research* **56**: 4074-4082.

- Ren, J., B. O'Grady, and **J.R. McCutcheon**. 2016. Sulfonated polysulfone supported high performance thin film composite membranes for forward osmosis. *Polymer* **103**: 486-497.
- Ren, J., M.R. Chowdhury, J. Qi, L. Xia, B. Huey, and **J.R. McCutcheon**. 2017. Relating osmotic performance of thin film composite hollow fiber membranes to support layer surface pore size. *Journal of Membrane Science* **540**: 344-353.
- Rousselet, E., M. Levin, E. Gebhard, B.M. Higgins, S. DeGuise, and C.A. Godard-Coding. 2013. Evaluation of immune functions in captive immature loggerhead sea turtles (*Caretta caretta*). *Veterinary Immunology and Immunopathology* **156**: 43-53.
- Roy D., D.C. Hardie, M.A. Treble, J.D. Reist, and D.E. Ruzzante. 2015. Panmixia and incomplete lineage sorting can give similar mtDNA signals: response to comment by Carr and Davidson. *Canadian Journal of Fisheries and Aquatic Sciences* **72**: 1122-1123.
- Roy, D., K. Lucek, R.P. Walter, and O. Seehausen. 2015. Hybrid 'superswarm' leads to rapid divergence and establishment of populations during a biological invasion. *Molecular Ecology* **24**: 5394-5411.
- Rubinstein, R.L., A.L. Kadilak, V.C. Cousens, D.J. Gage, and **L.M. Shor**. 2015. Protist-facilitated particle transport using emulated soil micromodels. *Environmental Science & Technology* **49**: 1384-1391.
- Saini, R., **G.L. Wang**, and J.S. Pal. 2016. Role of soil moisture feedback in the development of extreme summer drought and flood in the United States. *Journal of Hydrometeorology* **17**: 2191-2207.
- Saini, R., **G.L. Wang**, M. Yu, and J.H. Kim. 2015: Comparison of RCM and GCM projections of summer precipitation in West Africa. *JGR-Atmospheres* **120**: 3679-3699.
- Samaweera, M., W.C. Jolin, D. Vasudevan, J.A. Gascon, and **A.A. Mackay**. 2014. Atomistic prediction of sorption ree energies of cationic aromatic amines on montmorillonite: a linear interaction energy method. *Environmental Science & Technology Letters* **1**: 284-289.
- Santoro, C., A. Stadlhofer, V. Hacker, G. Squadrito, U. Schröder, and **B. Li**. 2013. Activated carbon nanofibers (ACNF) as cathode for single chamber microbial fuel cells (SCMFCs). *Journal of Power Sources* **243**: 499-507.
- Santoro, C., **B. Li**, P. Cristiani, and G. Squadrito. 2012. Power generation of microbial fuel cells (MFCs) with low cathodic platinum loading. *International Journal of Hydrogen Energy* **38**: 692-700.
- Santoro, C., I. Ieropoulos, J. Greenman, P. Cristiani, **T. Vadas**, **A. MacKay**, and **B. Li**. 2013. Power generation and contaminant removal in single chamber microbial fuel cells (SCMFCs) treating human urine. *International Journal of Hydrogen Energy* **38**: 11543-11551.
- Santoro, C., I. Ieropoulos, J. Greenman, P. Cristiani, **T. Vadas**, **A. MacKay**, and **B. Li**. 2013. Current generation in membraneless single chamber microbial fuel cells (MFCs) treating urine. *Journal of Power Sources* **238**: 190-196.
- Santoro, C., M. Cremins, M. Guillizzoni, A. Casalegno, **A.A. Mackay**, and **B. Li**. 2013. Evaluation of water transport and oxygen presence in single chamber microbial fuel cells with carbon-based cathodes. *Journal of the Electrochemical Society* **160**: G3128-G3134.
- Santoro, C., S. Babanova, K. Artyushkova, P. Atanassov, J. Greenman, P. Cristiani, S. Trasatti, A.J. Schuler, **B. Li**, and I. Ieropoulos. 2014. The effects of wastewater types on power generation and phosphorous removal of microbial fuel cells (MFCs) with activated carbon (AC) cathodes. *International Journal of Hydrogen Energy* **39**: 21796-21802.

- Santoro, C., Y. Lei, **B. Li**, and P. Cristiani. 2012. Power generation from wastewater using single chamber microbial fuel cells (MFCs) with platinum free cathodes and pre-colonized anodes. *Biochemical Engineering Journal* **62**: 8-16.
- Santos, G.M.M., W. Dáttilo, and S.J. Presley. 2015. The seasonal dynamic of ant-flower networks in a semi-arid tropical environment. *Ecological Entomology* **39**: 674-683.
- Savery, L.C., D.C. Evers, S.S. Wise, C. Falank, J. Wise, C. Gianios, I. Kerr, R. Payne, W.D. Thompson, C. Perkins, T. Zheng, C. Zhu, L. Benedict, J.P. Wise. 2013. Global mercury and selenium concentrations in skin from free-ranging sperm whales (*Physeter macrocephalus*). *Science of the Total Environment* **450-451**: 59-71.
- Savery, L.C., J.T. Wise, S. Wise, C. Falank, C. Gianios, W.D. Thompson, C. Perkins, T. Zheng, C. Zhu, and J.P. Wise. 2014. Global assessment of arsenic pollution using Sperm Whales (*Physeter macrocephalus*) as an emerging aquatic model organism. *Comparative Biochemistry and Physiology – Part C: Toxicology and Pharmacology* **163**: 55-63.
- Savery, L.C., S.S. Wise, C. Falank, J. Wise, C. Gianios, W.D. Thompson, C. Perkins, T. Zheng, C. Zhu, and J.P. Wise. 2014. Global assessment of oceanic lead pollution using sperm whales (*Physeter macrocephalus*) as an indicator species. *Marine Pollution Bulletin* **79**: 236-244.
- Savery, L.C., T.L. Chen, J.T. Wise, S.S. Wise, C.R. Perkins, C. Falank, T. Zheng, C. Zhu, and J.P. Wise. 2015. Global assessment of cadmium concentrations in the skin of free-ranging sperm whales (*Physeter macrocephalus*). *Comparative Biochemistry and Physiology - Part C: Toxicology and Pharmacology* **178**: 136-144.
- Savoy L., P. Flint, D. Zwiefelhofer, H. Brant, C. Perkins, R. Taylor, O. Lane, J. Hall, D. Evers, and J. Schamber. 2017. Geographic and temporal patterns of variation in total mercury concentrations in blood of harlequin ducks and blue mussels from Alaska. *Marine Pollution Bulletin* **117**: 178-183.
- Scheiner, S.M., E. Kosman, S.J. Presley, and **M.R. Willig**. 2017. Decomposing functional diversity. *Methods in Ecology and Evolution* **8**: 809-820.
- Scheiner, S.M., E. Kosman, S.J. Presley, and **M.R. Willig**. 2017. The components of biodiversity, with a particular focus on phylogenetic information. *Ecology and Evolution* **7**: 6444-6454.
- Schwalter, T.D., **M.R. Willig**, and S.J. Presley. 2017. Post-hurricane successional dynamics in abundance and diversity of canopy arthropods in a tropical rainforest. *Environmental Entomology* **46**: 11-20.
- Schwalter, T.D., **M.R. Willig**, and S.J. Presley. 2014. Canopy arthropod responses to experimental canopy opening and debris deposition in a tropical rainforest subject to hurricanes. *Forest Ecology and Management* **332**: 93-102.
- Schröfel, A., G. Kratošová, I. Šafařík, M. Šafaříková, I. Raška, and **L. M. Shor**. 2014. Applications of biogenic metallic nanoparticles – a review. *Acta Biomaterialia* **10**: 4023-4042
- Seda, N., F. Koenigsmark, and **T.M. Vadas**. 2016. Sorption and coprecipitation of copper to ferrihydrite and humic acid organomineral complexes and controls on copper availability. *Chemosphere* **147**: 272-278.
- Seegar, W.S., M.A. Yates, G.E. Doney, J.P. Jenny, T.C. M. Seegar, **C.R. Perkins**, and M. Gaovanni. 2016. Migrating Tundra Peregrine Falcons accumulate polycyclic aromatic hydrocarbons along Gulf of Mexico following Deepwater Horizon Oil Spill. *Ecotoxicology* **24**: 1102-1111.
- Shi, Y., **G.L. Wang**, and X.J. Gao. 2017. Role of Resolution in regional climate change projections over China. *Climate Dynamics* doi: 10.1007/s00382-017-4018-x.

- Shiels, A.B., G. Gonzalez, and **M.R. Willig**. 2014. Responses to canopy loss and debris deposition in a tropical forest ecosystem from an experimental manipulation simulating effects of hurricane disturbance. *Forest Ecology and Management* **332**: 124-133.
- Shiels, A.B., G. Gonzalez, D.J. Lodge, **M.R. Willig**, and J.K. Zimmerman. 2015. Cascading effects of canopy opening and debris deposition from a large-scale hurricane experiment in a tropical rain forest. *Bioscience* **65**: 871-881.
- Siam M., **G.L. Wang**, M.-E. Demory, and E.A.B. Eltahir. 2014. Role of the Indian Ocean sea surface temperature in shaping the natural variability in the flow of the Nile River. *Climate Dynamics* **43**: 1011-1023.
- Smith, E.C., and **S.K. Swallow**. 2013. Lindahl pricing for public goods and experimental auctions for the environment. Pages 45-51 *in* J. Shogren, editor. *Encyclopedia of Energy, Natural Resource, and Environmental Economics*, volume 3. Elsevier, Amsterdam, The Netherlands.
- Stuart, J.D., and A.A. Provatas. 2017. Inexpensive and simple, miniature static headspace/GC method for the analysis of methanol in biodiesel with a potential to be utilized in various other applications. *LCGC's The Column* **13**: 15-18.
- Stuart-Haëntjens, E.J., P.S. Curtis, **R.T. Fahey**, C.S. Vogel, and C.M. Gough. 2015. Net primary production of a temperate deciduous forest exhibits a threshold response to increasing disturbance severity. *Ecology* **96**: 2478-2487.
- Sun, S.S., and **G.L. Wang**. 2012. The complexity of using a feedback parameter to quantify the soil moisture-precipitation relationship. *Journal of Geophysical Research Atmospheres* **117**: D11113.
- Sun, S.S., and **G.L. Wang**. 2014. Climate variability attributable to terrestrial and oceanic forcing in NCAR CAM3-CLM3 models. *Climate Dynamics* **42**: 2067-2078.
- Suresh, A., M.J. Arellano-Jimenez, **J.R. McCutcheon**, and C. Carter. 2012. Polycrystalline TiO₂ produced by electrospinning. *Microscopy and Microanalysis* **18**: 1392-1393.
- Swallow, S.K.** 2013. Demand-side value for ecosystem services and implications for innovative markets: experimental perspectives on the possibility of private markets for public goods. *Agricultural and Resource Economics Review* **42**: 33-56.
- Swallow, S.K.**, C.M. Anderson, and E. Uchida. 2017. The Bobolink Project: selling public goods from ecosystem services using provision point mechanisms. *Ecological Economics*.
- Sylla, B., J.S. Pal, **G.L. Wang**, and P. Lawrence. 2015. Impact of land surface characterization on regional climate modeling over West Africa. *Climate Dynamics* **46**: 637-650.
- Tant, C.J., A.D. Rosemond, **A.M. Helton**, and M.R. First. 2015. Nutrient enrichment alters the relative contribution of fungi, bacteria, and detritivores to leaf litter breakdown. *Freshwater Science* **34**: 1259-1271.
- Turpin-Nagel, K., and **T.M. Vadas**. 2016. Controls on metal exposure to aquatic organisms in urban streams. *Environmental Science: Processes & Impacts* **18**: 956-967.
- Umaz, R., C. Garrett, F. Qian, **B. Li**, and L. Wang. 2017. A power management system for multianode benthic microbial fuel cells. *IEEE Transactions on Power Electronics* **32**: 3562-3570.
- Vadas, T.M.**, M. Smith, and H. Luan. 2017. Leaching and retention of dissolved metals in particular loaded pervious concrete columns. *Journal of Environmental Management* **190**: 1-8.
- Walker, L.R., and **M.R. Willig**. 2016. Tradeoffs of participation in the Long-Term Ecological Research (LTER) Program: immediate and long-term consequences. Pages 433-437 *in* **M.R.**

- Willig** and L.R. Walker, editors. Long-Term Ecological Research: changing the Nature of Scientists. Oxford University Press, New York, New York.
- Walter, R.P., **D. Roy**, N.E. Hussey, B. Stelbrink, C. Lydersen, B. McMeans, J. Svavarsson, S. Kessel, S. Porsmoguer, S. Wildes, C. Tribuzio, S. Petersen, R.D. Grubbs, K.M. Kovacs, D.D. Heath, and A.T. Fisk. 2017. Origins of the Greenland shark: impacts of ice-olation and introgression. *Ecology and Evolution* **7**: 8113–8125.
- Wang W., **C. Zhang**, J.M. Allen, W. Li, M.A. Boyer, K. Segerson, and J.A. Silander, Jr. 2016. Analysis and prediction of land use changes related to invasive species and major driving forces in the state of Connecticut. *Land* **5**: 25.
- Wang, B., S. Wang, **B. Li**, C. Peng, and Y. Peng. 2014. Integrating waste activated sludge (WAS) acidification with denitrification by adding nitrite. *Biomass and Bioenergy* **67**: 460-465.
- Wang, B., S. Wang, **B. Li**, Y. Guo, and Y. Peng. 2016. Enhancement of integrated waste activated sludge fermentation and denitritation by addition of sodium dodecyl sulfate. *CLEAN Soil, Air, Water* **44**: 885-890.
- Wang, D.G., **G.L. Wang**, D. Parr, W.L. Liao, Y.L. Xia, and C.S. Fu. 2017. Incorporating remote sensing ET data into the Community Land Model Version 4.5. *Hydrology and Earth System Sciences* **21**: 3557-3577.
- Wang, D.G., P. Jiang, **G.L. Wang**, and D.S. Wang. 2015. Quantitative assessment of correlation between urban extent and extreme precipitation over the Pearl River Delta, China. *Atmospheric Sciences Letters* **16**: 310-317.
- Wang, G.L.**, D. Wang, K.E. Trenberth, M. Yu, A. Erfanian, M. Bosilovich, and D. Parr. 2017. The peak structure and future changes of the relationships between extreme precipitation and temperature. *Nature Climate Change* **7**: 268-274.
- Wang, G.L.**, K.F. Ahmed, L.Z. You, M. Yu, J.S. Pal, and Z.M. Ji. 2017. Projecting regional climate and cropland changes using a linked biogeophysical-socioeconomic modeling framework. Part 1: Model description and an equilibrium application. *Journal of Advances in Modeling Earth Systems* **9**: 354-376.
- Wang, G.L.**, M. Yu, and Y.K. Xue. 2015. Modeling the potential contribution of land cover changes to the Sahel drought using a regional climate model: sensitivity to lateral boundary conditions and experimental approach. *Climate Dynamics* **47**: 3457-3477.
- Wang, G.L.**, Y. Miao, J.S. Pal, M. Rui, G.B. Bonan, S. Levis, and P.E. Thornton. 2015. On the development of a coupled regional climate-vegetation model RCM-CLM-CN-DV and its validation in Tropical Africa. *Climate Dynamics* **46**: 515-539.
- Wang, K, **C. Zhang**, and W. Li. 2012. Comparison of geographically weighted regression and regression kriging for estimating the spatial distribution of soil organic matter. *GIScience & Remote Sensing* **49**: 915-932.
- Wang, K, **C. Zhang**, and W. Li. 2013. Predictive mapping of soil total nitrogen at a regional scale: a comparison between geographically weighted regression and cokriging. *Applied Geography* **42**: 73-85.
- Wang, K., **C. Zhang**, W. Li, J. Lin, and D. Zhang. 2014. Mapping soil organic matter with limited sample data using geographically weighted regression. *Journal of Spatial Science* **59**: 91-106.
- Wang, X., C. Santoro, P. Cristiani, L. Yu, A. Agrios, and **B. Li**. 2013. Influence of electrode characteristics on coulombic efficiency (CE) in microbial fuel cells (MFCs) treating wastewater. *Journal of the Electrochemical Society* **160**: 3117-3122.

- Wang, X., S. Wang, J. Zhao, X. Dai, **B. Li**, and Y. Peng. 2016. A novel stoichiometries methodology to quantify functional microorganisms in simultaneous (partial) nitrification-endogenous denitrification and phosphorus removal (SNEDPR). *Water Research* **95**: 319-329.
- Wang, X., S. Wang, T. Xue, **B. Li**, X. Dai, and Y. Peng. 2015. Treating low carbon/nitrogen (C/N) wastewater in simultaneous nitrification-endogenous denitrification and phosphorous removal (SNDPR) systems by strengthening anaerobic intracellular carbon storage. *Water Research* **77**: 191-200.
- Willig, M.R.** 2012. A bat monitoring network for global change in the Anthropocene: now or never. Pages 20-25 in C. Flaquer and X. Puig-Montserrat, editors. Proceedings of the International Symposium on the Importance of Bats as Bioindicators. Museum of Natural Sciences Edicions, Granollers (Barcelona), Spain.
- Willig, M.R.**, and L.R. Walker. 2016. Changing the nature of scientists: participation in the Long-Term Ecological Research Program. Pages 3-27 in **M.R. Willig** and L.R. Walker, editors. Long-Term Ecological Research: Changing the Nature of Scientists. Oxford University Press, New York, New York.
- Willig, M.R.**, and L.R. Walker. 2016. Preface. Pages xi-xiii in **M.R. Willig** and L.R. Walker, editors. Long-Term Ecological Research: Changing the Nature of Scientists. Oxford University Press, New York, New York.
- Willig, M.R.**, and S.J. Presley. 2013. Latitudinal gradients of biodiversity, Pages 612-626 in S. Levin, editor. Encyclopedia of Biodiversity, 2nd Edition. Academic Press, Waltham, Massachusetts.
- Willig, M.R.**, and S.J. Presley. 2016. Biodiversity and metacommunity structure of animals along tropical montane forest gradients. *Journal of Tropical Ecology* **32**: 421-436.
- Willig, M.R.**, and S.J. Presley. 2017. Biodiversity and disturbance. Pages 1-7 in References Module in Encyclopedia of the Anthropocene. Elsevier Ltd., Oxford, United Kingdom.
- Willig, M.R.**, and S.J. Presley. 2017. Latitudinal gradients of biodiversity. Pages 1-7 in References Module in Encyclopedia of the Anthropocene. Elsevier Ltd., Oxford, United Kingdom.
- Willig, M.R.**, and S.J. Presley. Latitudinal gradients of biodiversity. 2017. Pages 1-17 in Reference Module in Life Sciences. Elsevier, Amsterdam, The Netherlands.
- Willig, M.R.**, C.P. Bloch, and S.J. Presley. 2014. Experimental decoupling of canopy opening and debris addition on tropical gastropod populations and communities. *Forest Ecology and Management* **332**: 103-117.
- Willig, M.R.**, S.J. Presley, C.P. Bloch, and J. Alvarez. 2013. Population, community, and metacommunity dynamics of terrestrial gastropods in the Luquillo Mountains: a gradient perspective. *Ecological Bulletins* **54**: 117-140.
- Wise, C.F., S.S. Wise, W.D. Thompson, C.R. Perkins, and J.P. Wise, Sr. 2015. Chromium is elevated in fin whale (*Balaenoptera physalus*) skin tissue and is genotoxic to Fin Whale skin cells. *Biological Trace Element Research* **166**: 108-117.
- Wise, J.P. Jr., J. Wise, C. Wise, S. Wise, C. Gianios, H. Xie, W. D. Thompson, C. Perkins, C. Falank, and J.P. Wise, Sr. 2014. Concentrations of the genotoxic metals, chromium and nickel, in whales, tarballs, oil slicks and released oil from the Gulf of Mexico in the immediate aftermath of the Deepwater Horizon oil crisis: Is genotoxic metal exposure part of the Deepwater Horizon legacy? *Environmental Science and Technology* **48**: 2997-3006.

- Wu, C., Y. Peng, S. Wang, **B. Li**, L. Zhang, S. Cao, and R. Du. 2014. Mechanisms of nitrite addition for simultaneous sludge fermentation/nitrite removal (SFNR). *Water Research* **64**: 13-22.
- Wu, D., E.N. Anagnostou, **G.L. Wang**, and S. Moges. 2014. Improving the surface-ground water interactions in the Community Land Model: case study in the Blue Nile Basin. *Water Resources Research* **50**: 8015-8033.
- Xu, Z., Q. Dong, B. Otieno, Y. Liu, I. Williams, D. Cai, Y. Li, Y. Lei, and **B. Li**. 2016. Real-time in situ sensing of multiple water quality related parameters using micro-electrode array (MEA) fabricated by inkjet-printing technology (IPT). *Sensors and Actuators B: Chemical* **237**: 1108-1119.
- Xu, Z., W. Zhou, H. Zhang, M. Shen, Y. Liu, D. Cai, Y. Li, Y. Lei, G. Wang, A.C. Bagtzoglou, and **B. Li**. 2017. Flat thin mm-sized soil moisture sensor fabricated by gold compact discs etching for real-time in situ profiling. *Sensors and Actuators B: Chemical* **255**: 1166-1172.
- Xu, Z., W. Zhou, Q. Dong, Y. Li, D. Cai, Y. Lei, A.C. Bagtzoglou, and **B. Li**. 2017. Flat flexible thin milli-electrode array for real-time in situ water quality monitoring in distribution system. *Royal Society of Chemistry* **3**: 865-874.
- Xu, Z., Y. Liu, I. Williams, Y. Li, F. Qian, H. Zhang, D. Cai, L. Wang, and **B. Li**. 2016. Disposable self-support paper-based multi-anode microbial fuel cell (PMMFC) integrated with power management system (PMS) as the real time "shock" biosensor for wastewater. *Biosensors and Bioelectronics* **85**: 232-239.
- Xu, Z., Y. Liu, I. Williams, Y. Li, F. Qian, L. Wang, Y. Lei, and **B. Li**. 2017. Flat enzyme-based lactate biofuel cell integrated with power management system: towards long term in situ power supply for wearable sensors. *Applied Energy* **194**: 71-80.
- Xu, Z.G, B.G. Liu, Q. Dong, Y. Lei, Y. G. Li, **J. McCutcheon**, and **B. Li**. 2015. Membrane-based microbial fuel cell sensor for self-supported in situ on-line monitoring of wastewater shocks. *Bioresource Technology* **197**: 244-251.
- Xue, Y., F. De Sales, W. K-M Lau, A. Boone, K.-M. Kim, C.R. Mechoso, **G. Wang**, and 23 others. 2016: West African monsoon decadal variability and drought and surface-related forcings: Second West African Monsoon Modeling and Evaluation Project Experiment (WAMME II). *Climate Dynamics* **47**: 3517-3545.
- Yan, L., Y. Wu, B. Liu, H. Luan, **T. Vadas**, and **B. Li**. 2015. Self-sustained simultaneous reduction of multiple metals in a microbial fuel cell-microbial electrolysis cell hybrid system. *Bioresource Technology* **192**: 238-246.
- Yang, Y., L. Zhang, J. Cheng, S. Zhang, **B. Li**, and Y. Peng, Y. 2017. Achieve efficient nitrogen removal from real sewage in a plug-flow integrated fixed-film activated sludge (IFAS) reactor via partial nitrification/anammox pathway. *Bioresource Technology* **239**: 294-301.
- Yates, D.E., S.E. Angelo, D.C. Evers, J. Schmerfeld, M.S. Moore, T.H. Kunz, T. Divoll, S.T. Edmonds, C. Perkins, R. Taylor, and N.O. Driscoll. 2014. Mercury in bats from the Northeastern United States. *Ecotoxicology* **23**: 45-55.
- Yeudakimau A.V., A.A. Provas, C.R. Perkins, and J.D. Stuart. 2013. Solid phase extraction and QuEChERS sample preparation methods for rapid screening of polycyclic aromatic hydrocarbons in avian blood and egg tissue by UPLC-UV. *Analytical Letters* **46**: 999-1011.
- Yeudakimau, A.V., C.R. Perkins, G.M. Guerrero, J.D. Stuart, and A.A. Provas. 2014. QuEChERS sample preparation followed by ultra-performance liquid chromatography -tandem mass

- spectrometry for rapid screening of dioctyl sulfosuccinate sodium salt in avian egg tissue. *International Journal of Environmental and Analytical Chemistry* **94**: 1183-1198.
- You, J., C. Santoro, J. Greenman, C. Melhuish, P. Cristiani, **B. Li**, and I. Ieropoulos. 2014. Micro-porous layer (MPL)-based anode for microbial fuel cells. *International Journal of Hydrogen Energy* **39**: 21811-21818.
- Yu, M., and **G.L. Wang**, 2014. Impact of bias correction of lateral boundary conditions on regional climate projections in West Africa. *Climate Dynamics* **42**: 2521-2538.
- Yu, M., and **G.L. Wang**. 2014. Future changes of the terrestrial ecosystem based on a dynamic vegetation model driven with RCP8.5 climate projections from 19 GCMs. *Climatic Change* **127**: 257-271.
- Yu, M., **G.L. Wang**, and H.S. Chen. 2016. Quantifying the impacts of land surface schemes and dynamic vegetation on the model dependency of projected changes in surface energy and water budgets. *Journal of Advances in Modeling Earth Systems* **8**: 370-386.
- Yu, M., **G.L. Wang**, and J. S. Pal. 2016. Effects of vegetation feedback on future climate change over West Africa. *Climate Dynamics* **46**: 3669-3688.
- Yu, M., **G.L. Wang**, D.T. Parr, and K.F. Ahmed. 2014. Future changes of the terrestrial ecosystem based on a dynamic vegetation model driven with RCP8.5 climate projections from 19 GCMs. *Climatic Change* **127**: 257-271.
- Yu, R., B.F. Smets, P. Gan, **A.A. Mackay**, and J. Graf. 2014. Seasonal and spatial variations in microbial activity at various phylogenetic resolutions at a groundwater - surface water interface. *Canadian Journal of Microbiology* **60**: 277-86.
- Yuan, Y., Y. Liu, **B. Li**, B. Wang, S. Wang, and Y. Peng. 2016. Short-chain fatty acids production and microbial community in sludge alkaline fermentation: Long-term effect of temperature. *Bioresource Technology* **211**: 685-690.
- Yuan; Y., S. Wang, Y. Liu, **B. Li**, B. Wang, and Y. Peng. 2015. Long-term effect of pH on short-chain fatty acids accumulation, microbial community and sludge reduction in sludge fermentation systems. *Bioresource Technology* **197**: 56-63.
- Zhai, R., **C. Zhang**, W. Li, M. Boyer, and D. Hanink. 2016. Prediction of land use change in Long Island Sound Watersheds using nighttime light data. *Land* **5**: 44.
- Zhang W., W. Li, **C. Zhang**, and W.B. Ouimet. 2017. Detecting horizontal and vertical urban growth from medium resolution imagery and its relationships with major socioeconomic factors. *International Journal of Remote Sensing* **38**: 3704-3734.
- Zhang W., W. Li, **C. Zhang**, and X. Li. 2017. Incorporating spectral similarity into Markov chain geostatistical cosimulation for reducing smoothing effect in land cover postclassification. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* **10**: 1082-1095.
- Zhang W., W. Li, **C. Zhang**, D. Hanink, X. Li, and W. Wang. 2017. Parcel-based urban land use classification in megacity using airborne LiDAR, high resolution orthoimagery, and Google Street View. *Computers, Environment and Urban Systems* **64**: 215-228.
- Zhang W., W. Li, **C. Zhang**, D. Hanink, X. Li, and W. Wang. 2017. Parcel feature data derived from Google Street View images for urban land use classification in Brooklyn, New York City. *Data in Brief* **12**: 175-179.
- Zhang, B., W. Li, and **C. Zhang**. 2013. Statistical analyses of soil heavy metal pollution in the Wuhan Donghu High-tech Development Park. *Environmental Chemistry* **32**: 1714-1722.

- Zhang, C.**, and W. Li. 2014. Geospatial semantic web for spatial data sharing. Pages 551-559 in M. Khosrow-Pour, editor. *Encyclopedia of Information Science and Technology (3rd Ed.)*, IGI Global, Hershey, Pennsylvania.
- Zhang, C., D. Wang, **G.L. Wang**, and X. P. Liu. 2013. Regional differences in hydrological responses to canopy interception schemes in a land surface model. *Hydrological Processes* **28**: 2499-2508.
- Zhang, C.**, T. Zhao, and W. Li. 2013. Towards improving query performance of web feature services (WFS) for disaster response. *ISPRS International Journal of Geo-Information* **2**: 67-81.
- Zhang, C.**, T. Zhao, and W. Li. 2015. Towards an interoperable online volunteered geographic information system for disaster response. *Journal of Spatial Science* **60**: 257-275.
- Zhang, C.**, T. Zhao, and W. Li. 2017. Big geospatial data and geospatial semantic web: current state and future opportunities. Pages 43-64 in Y. Wu, F. Hu, G. Min, and A. Zomaya, editors. *Big Data and Computational Intelligence in Networking*. Taylor & Francis LLC, CRC Press, Boca Raton, Florida.
- Zhang, C.**, T. Zhao, L. Anselin, W. Li, and K. Chen. 2015. A map-reduce based parallel approach for improving query performance in a geospatial semantic web for disaster response. *Earth Science Informatics* **8**: 499-509.
- Zhang, C.**, W. Li, and D. Civco. 2014. Application of geographically weighted regression to fill gaps in SLC-off Landsat ETM+ satellite imagery. *International Journal of Remote Sensing* **35**: 7650-7672.
- Zhang, C.T., Y. Yang, W. Li, **C. Zhang**, R.X. Zhang, Y. Mei, X.S. Liao, and Y.Y. Liu. 2015. Spatial distribution and ecological risk assessment of trace metals in urban soils in Wuhan, central China. *Environmental Monitoring and Assessment* **187**: 556.
- Zhang, D., **C. Zhang**, W. Li, R. Cromley, D. Hanink, D. Civco, and D. Travis. 2014. Restoration of the missing pixel information caused by contrails in multispectral remotely sensed imagery. *Journal of Applied Remote Sensing* **8**: 083698.
- Zhang, F., Y. Peng, L. Miao, Z. Wang, S. Wang, and **B. Li**. 2017. A novel simultaneous partial nitrification Anammox and denitrification (SNAD) with intermittent aeration for cost-effective nitrogen removal from mature landfill leachate. *Chemical Engineering Journal* **313**: 619-628.
- Zhang, Q., S. Wang, W. Wang, P. Bao, **B. Li**, and Y. Peng. 2015. Achieving one-stage sludge reduction by adding chironomid larvae in wastewater treatment systems. *Ecological Engineering* **83**: 291-295.
- Zhang, W., W. Li, and **C. Zhang**. 2016. Land cover postclassifications by Markov chain geostatistical cosimulation based on pre-classifications by different conventional classifiers. *International Journal of Remote Sensing* **37**: 926-949.
- Zhao T., **C. Zhang**, and W. Li. 2017. Adaptive and optimized RDF query interface for distributed WFS data. *ISPRS International Journal of Geo-Information* **6**: 108.
- Zhao, T., **C. Zhang**, L. Anselin, W. Li and K. Chen. 2014. A Parallel approach for improving Geo-SPARQL query performance. *International Journal of Digital Earth* **8**: 383-402.
- Zhu, X., G. Wu, N. Lu, X. Yuan, and **B. Li**. 2017. A miniaturized electrochemical toxicity biosensor based on graphene oxide quantum dots/carboxylated carbon nanotubes for assessment of priority pollutants. *Journal of Hazardous Materials* **324**: 272-280.

Zhu, X., K. Zhang, C. Wang, J. Guan, X. Yuan, and **B. Li**. 2016 Quantitative determination and toxicity evaluation of 2, 4-dichlorophenol using poly (eosin Y)/hydroxylated multi-walled carbon nanotubes modified electrode. *Scientific Reports* **6**: 38657.

Books

González, G., **M.R. Willig**, and R.B. Waide, editors. 2013. Ecological Gradient Analyses in Tropical Landscape. *Ecological Bulletins* **53**: 1-250.

Willig, M.R., and L.R. Walker, editors. 2016. Long-Term Ecological Research: Changing the Nature of Scientists. Oxford University Press, New York, New York.

Zhang, C., T. Zhao, and W. Li. 2015. Geospatial Semantic Web. Springer, New York, New York.

¹ Names of Center Faculty Members appear in **bold**.

² Names of Center Staff Members are underlined.