

Recent Publications

Schilling, K., Jacobson, P., Streeter, M. and C. Jones. 2016. Groundwater hydrology and quality in farmed wetlands of the Des Moines Lobe in Iowa. *Wetlands*. DOI 10.1007/s13157-016-0825-9.

Schilling, K. and P. Jacobson. 2016. Water and nutrient discharge to a high-value terrace-floodplain fen: resilience and risk. *Ecohydrology*. DOI: 10.1002/eco.1718.

Schilling, K., P. Jacobson, R. Libra, J. Gannon, R. Langel, and D. Peate. 2017. Estimating Groundwater Age in the Cambrian-Ordovician Aquifer in Iowa: Implications for Biofuel Production and other Water Uses. *Environmental Earth Sciences*. DOI 10.1007/s12665-016-6321-y

Jacobson, K., van Diepeningen, A., Evans, S., Fritts, R., Gemmel, P., Marsho, C., Seely, M., Wenndt, A., Yang, X., and P. Jacobson. (2015) Non-Rainfall moisture activates fungal decomposition of surface litter in the Namib Sand Sea. *PLoS ONE* 10 (5): e0126977. doi:10.1371/journal.pone.0126977

Schilling, K., P. Jacobson and J. Vogelgesang. 2015. Agricultural conversion of floodplain ecosystems: implications for groundwater quality. *Journal of Environmental Management* 153: 74-83.

Jacobson, N., P. Jacobson, E. van Jaarsveld and K. Jacobson. 2014. Field evidence from Namibia does not support the designation of Angolan and Namibian subspecies of *Welwitschia mirabilis* Hook. *Transactions of the Royal Society of South Africa*. In Press.

Jacobson, K., D. Cutchins, M. Seely, J. Seiz, E. Willis and P. Jacobson (2014). Supporting a teaching and learning community across borders: Grinnell College at Gobabeb, *Transactions of the Royal Society of South Africa*, DOI: 10.1080/0035919X.2014.941962

Schilling, K. and P. Jacobson. 2014. Field Observation of Diurnal Dissolved Oxygen Fluctuations in Shallow Groundwater. *Groundwater*. DOI: 10.1111/gwat.12218

Schilling, K. and P. Jacobson. 2014. Effectiveness of natural riparian buffers to reduce subsurface nutrient losses to incised streams. *Catena*. 114: 140-148.

Schilling, K. and P. Jacobson. 2014. Temporal variations in dissolved oxygen concentrations observed in a shallow floodplain aquifer. *River Research and Applications*. DOI: 10.1002/rra.2759

Jacobson, P.J. and K.M. Jacobson. 2013. Hydrologic controls of physical and ecological processes in Namib Desert ephemeral rivers: implications for conservation and management. *Journal of Arid Environments*. 93: 80-93.

Schilling, K. and P. Jacobson. 2012. Spatial Relations of Topography, Lithology and Water Quality in a Large River Floodplain. *River Research and Applications* 28(9): 1417-1427.

Tomer, M.D., K.E. Schilling, C.A. Cambardella, P. Jacobson and P. Drobney. 2010. Groundwater nutrient concentrations during prairie reconstruction on an Iowa landscape. *Agriculture, Ecosystems and Environment* 139: 206-213.

Schilling, K. and P. Jacobson. 2010. Groundwater Conditions under a Reconstructed Prairie Chronosequence. *Agriculture, Ecosystems and Environment*. 135: 81-89.

Schilling, K. and P. Jacobson. 2009. Water Uptake and Nutrient Concentrations under a Floodplain Oak Savanna during a Non-Flood Period, Lower Cedar River, Iowa. *Hydrologic Processes*. 23: 3006-3016.

Schilling, K.E., J.A. Palmer, E.A Bettis III, P. Jacobson, R.C. Schultz and T.M. Isenhart. 2009. Vertical distribution of total carbon, nitrogen and phosphorus in riparian soils of Walnut Creek, southern Iowa *Catena* 77: 266-273.

Schilling, K. and P. Jacobson. 2008. Groundwater nutrient concentrations near an incised Midwestern stream: effects of floodplain lithology and land management. *Biogeochemistry*. 87: 199-216.

Schilling, K.E., M.D. Tomer, Y.-K. Zhang, T. Weisbrod, P. Jacobson, and C.A. Cambardella. 2007. Hydrogeologic controls on nitrate transport in a small agricultural catchment, Iowa. *Journal of Geophysical Research*. 112, G03007, doi:10.1029/2007JG000405.