

Selected Karst Publications

- *Oberhelman, A., Martin, J.B., **Flint, M.K., 2024, Sources of limestone dissolution from surface water-groundwater interactions in the carbonate critical zone, *Chem. Geol.*, v. 662, <https://doi.org/10.1016/j.chemgeo.2024.122229>
- *Oberhelman, A., Martin, J.B., **Flint, M.K., 2024, Groundwater-surface water interaction, dissolved organic carbon oxidation, and eogenetic karst dissolution, *Earth Surface Processes and Landforms*, 1-15, DOI: 10.1002/esp.5830.
- *Flint, Madison, K., Martin, Jonathan B., *Oberhelman, Andrew, *Janelle, Alex, *Black, Megan, Barry-Sosa, Adrian, Christner, Brent C., 2023, Hydrologic and organic carbon quality controls on nitrous oxide dynamics across a variably confined karst aquifer, *JGR Biogeosciences*, 10.1029/2023JG007493.
- *Oberhelman, A., Martin, J.B., *Flint, M.K., 2023, Methane cycling in the carbonate critical zone, *STOTEN*, v. 899, <https://doi.org/10.1016/j.scitotenv.2023.165645>
- Covington, M. D., Martin, J. B., Toran, L. E., Macalady, J. L., Sekhon, N., Sullivan, P. L., Á. A. García Jr., J. B. Heffernan, and W. D. Graham, 2023, Carbonates in the critical zone. *Earth's Future*, 11, e2022EF002765. <https://doi.org/10.1029/2022EF002765>
- Flint M.K*, Martin, J.B., Summerall, T.I., Barry-Sosa, A. Christner, B.C., 2021. Nitrous oxide processing in carbonate karst aquifers. *Journal of Hydrology*, 594: 125936. DOI: <https://doi.org/10.1016/j.jhydrol.2020.125936>
- Brown, A.L*, Martin, J.B.#, Kamenov, G., Ezell, J.E*., Screamton, E.J., Gulley, J.D*., Spellman, P.D., 2018, Trace metal cycling in karst aquifers subject to periodic river Khadka, M.B., Martin, J.B., Kurz, M.J., 2017, Synoptic estimates of diffuse groundwater seepage to a spring-fed karst river at high spatial resolution using an automated radon measurement technique, *J. Hydro.*, 544; 86-96.
- Martin, J.B., 2017, Carbonate minerals in the global carbon cycle, *Chem Geol.*, 10.1016/j.chemgeo.2016.11.029, 449: 58-72.
- Gulley, J.D., Mayer, A.S., Martin, J.B., Bedekar, V., 2016, Sea level rise and inundation of island interiors: assessing impacts of lake formation and evaporation on water resources in arid climates, *GRL*, DOI 10.1002/2016GL070667.
- Martin, J.B., Kurz, M.J., Khadka, M.B., 2016, Climate control of decadal-scale increases in apparent ages of eogenetic karst spring water, *J. Hydro*, v. 540, p. 988-1001.
- Brown, A.L., Martin, J.B., Screamton, E., Ezell, J., Spellman, P., Gulley, J., 2014, Bank storage in karst aquifers: The impact of temporary intrusion of river water on carbonate dissolution and trace metal mobility, *Chemical Geology*, v. 385, 56-69.
- *Khadka, M. B., Martin, J. B., & Jin, J. (2014). Transport of dissolved carbon and CO₂ degassing from a river system in a mixed silicate and carbonate catchment. *Journal of Hydrology*, 513, 391-402. <https://doi.org/10.1016/j.jhydrol.2014.03.070>
- Kurz, M.J., de Montety, V., Martin, J.B., Cohen, M.J., Foster, C.R., 2013, Controls on diel metal cycles in a biologically productive carbonate-dominated river, *Chem. Geol.*, v. 358, p. 61-74
- Martin, J.B., *Gulley, J., *Spellman, P., 2012, Tidal pumping of water between Bahamian blue holes, aquifers, and the ocean, *J. Hydrology* doi: 10.1016/j.jhydrol.2011.11.033; 416-417, 23-38.

- **deMontety, V., Martin, J.B., Cohen, M.J., Foster, C., *Kurz, M.J., 2011, Influence of diel biogeochemical cycles on carbonate equilibrium in a karst river, *Chemical Geol.*, doi: 10.1016/j.chemgeo.2010.12.025.
- **Bailly-Comte, V., Martin, J.B. and Screamton, E.J., 2011, Time variant cross-correlation to assess residence time of water, implication for hydraulics of a sink/rise karst system, *Water Resources Research*, v. 47 W05547, doi: 10.1029/2010WR009613.
- *Gulley, J., Martin, J.B., Screamton, E.J., and *Moore, P.J., 2011 River reversals into karst springs: A model for cave enlargement in eogenetic karst aquifers, *Geol. Soc. Am. Bull.* v. 123, p. 457-467.
- *Moore, P.J., Martin, J.B., Screamton, E.J., and Neuhoff, P.S., 2010, Conduit enlargement in an eogenetic karst aquifer, *J. Hydrology*, **393**: 143-155, doi: 10.1016/j.jhydrol.2010.08.008.
- (58) **Bailly-Comte V., Martin, J.B., Jourde, H., Screamton, E.J., Pistre, S., *Langston, A., 2010, Influence of pressure transfer and water exchange between matrix and conduits on karst spring hydrographs, *J. Hydrology* 386: 98-114.
- *Moore, P.J., Martin, J.B., and Screamton, E.J., 2009, Geochemical and statistical evidence of recharge, mixing, and controls on spring discharge in an eogenetic karst aquifer, *J. Hydrol.*, doi: 10.1016/j.jhydrol.2009.07.052.
- Martin, Jonathan B., and *Moore, Paul J., 2008, Water circulation in carbonate platforms: Evidence from Sr concentrations and isotope ratios, San Salvador Island and Long Island, Bahamas, *Chemical Geology*, **249**:52-65.
- Martin, J.B., and *Dean, R.A., 2001, Exchange of water between conduits and matrix in the Floridan Aquifer, *Chemical Geol.*, **179**:145-166.
- Martin, J.B. and *Gordon, S.L., 1999, Surface and ground water mixing, flow paths, and temporal variations in chemical compositions of karst springs, in Sasowsky, I, and Wicks, C.M., (eds.) *Groundwater flow and contaminant transport in carbonate aquifers*, Rotterdam, A.A. Balkema, 65-92.

*PhD student under my supervision

**Postdoctoral researcher under my supervision