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RESEARCH INTERESTS

- Fate, transport, and remediation of contaminants in the environment
- Mobility of redox-sensitive radionuclides and metals in groundwater
- Field-based tracer experiments for characterization of hydraulic parameters and processes
- Method development for conducting and interpreting data from single-well push-pull tests

EDUCATION

- Ph.D. Geology, University of Tennessee – Knoxville
- M.S. Hydrology, University of California – Davis
- B.A. Geology, University of California – Berkeley

EMPLOYMENT

- Assistant Professor, Department of Geosciences, UW-Milwaukee, (2019 to current)
- Postdoc Research Associate, Earth Systems Observations, Los Alamos National Lab (2018 to 2019)
- Graduate Student Researcher, Earth & Planetary Sciences, UT-Knoxville (2013 to 2017)
- Graduate Student Researcher, Hydrologic Sciences, UC-Davis (2010 to 2013)
- Associate Geologist, Parsons, Boston, MA, Somerset, NJ, and Walnut Creek, CA (2007 to 2013)

RESEARCH ARTICLES

- 12) **Paradis, C.**, R. Johnson, A. Tigar, K. Sauer, O. Marina, P. Reimus, 2019. Field Experiments of Surface Water to Groundwater Recharge to Characterize the Mobility of Uranium and Vanadium at a Former Mill Tailing Site. *Journal of Contaminant Hydrology* (Under Review)
- 11) Busheck, T., D. Mackay, **C. Paradis**, R. Schmidt, & N. de Sieyes, 2019. Enhancing Microbial Sulfate Reduction of Hydrocarbons in Groundwater Using Permeable Filled Borings. *Ground Water Monitoring and Remediation* doi: 10.1111/gwmr.12346
- 10) **Paradis, C. J.**, L. D. McKay, E. Perfect, J. D. Istok & T. C. Hazen, 2019. Correction: Push-pull tests for estimating effective porosity: expanded analytical solution and in situ application (vol 26, pg 381, 2018). *Hydrogeology Journal* 27(1):437-439 doi:10.1007/s10040-018-1879-y.
- 09) Ge, X., B. J. Vaccaro, M. P. Thorgersen, F. L. Poole, II, E. L. Majumder, G. M. Zane, K. B. De Leon, W. A. Lancaster, J. W. Moon, **C. J. Paradis**, F. von Netzer, D. A. Stahl, P. D. Adams, A. P. Arkin, J. D. Wall, T. C. Hazen & M. W. W. Adams, 2019. Iron- and aluminium-induced depletion of molybdenum in acidic environments impedes the nitrogen cycle. *Environmental Microbiology* 21(1):152-163 doi:10.1111/1462-2920.14435.

RESEARCH ARTICLES

- 08) **Paradis, C. J.**, J.-W. Moon, D. A. Elias, L. D. McKay & T. C. Hazen, 2018. In situ decay of polyfluorinated benzoic acids under anaerobic conditions. *Journal of Contaminant Hydrology* 217:8-16 doi:10.1016/j.jconhyd.2018.08.009.
- 07) **Paradis, C. J.**, E. R. Dixon, L. M. Lui, A. P. Arkin, J. C. Parker, J. D. Istok, E. Perfect, L. D. McKay & T. C. Hazen, 2019. Improved Method for Estimating Reaction Rates During Push-Pull Tests. *Groundwater* 57(2):292-302 doi:10.1111/gwat.12770.
- 06) Mackay, D., E. Hathaway, N. de Sieyes, H. Zhang, E. Rasa, **C. Paradis**, R. Schmidt, J. Peng, T. Buscheck & N. Sihota, 2018. Comparing Natural Source Zone Depletion Pathways at a Fuel Release Site. *Ground Water Monitoring and Remediation* 38(2):24-39 doi:10.1111/gwmmr.12278.
- 05) Mackay, D., **C. Paradis**, T. Buscheck, E. Daniels, E. Hathaway, N. de Sieyes, E. Rasa, R. Schmidt & J. Peng, 2018. Methods to Estimate Source Zone Depletion of Fuel Releases by Groundwater Flow. *Ground Water Monitoring and Remediation* 38(1):26-41 doi:10.1111/gwmmr.12256.
- 04) **Paradis, C. J.**, L. D. McKay, E. Perfect, J. D. Istok & T. C. Hazen, 2018. Push-pull tests for estimating effective porosity: expanded analytical solution and in situ application. *Hydrogeology Journal* 26(2):381-393 doi:10.1007/s10040-017-1672-3.
- 03) **Paradis, C. J.**, S. Jagadamma, D. B. Watson, L. D. McKay, T. C. Hazen, M. Park & J. D. Istok, 2016. In situ mobility of uranium in the presence of nitrate following sulfate-reducing conditions. *Journal of Contaminant Hydrology* 187:55-64 doi:10.1016/j.jconhyd.2016.02.002.
- 02) Smith, M. B., A. M. Rocha, C. S. Smillie, S. W. Olesen, **C. Paradis**, L. Wu, J. H. Campbell, J. L. Fortney, T. L. Mehlhorn, K. A. Lowe, J. E. Earles, J. Phillips, S. M. Techtmann, D. C. Joyner, D. A. Elias, K. L. Bailey, R. A. Hurt, Jr., S. P. Preheim, M. C. Sanders, J. Yang, M. A. Mueller, S. Brooks, D. B. Watson, P. Zhang, Z. He, E. A. Dubinsky, P. D. Adams, A. P. Arkin, M. W. Fields, J. Zhou, E. J. Alm & T. C. Hazen, 2015. Natural Bacterial Communities Serve as Quantitative Geochemical Biosensors. *Mbio* 6(3) doi:10.1128/mBio.00326-15.
- 01) Mahmoudi, N., M. S. Robeson, II, H. F. Castro, J. L. Fortney, S. M. Techtmann, D. C. Joyner, **C. J. Paradis**, S. M. Pfiffner & T. C. Hazen, 2015. Microbial community composition and diversity in Caspian Sea sediments. *Fems Microbiology Ecology* 91(1) doi:10.1093/femsec/fiu013.

RESEARCH FUNDING

- United States Department of Energy Office of Legacy Management, \$268,200 (2019-2022) - Los Alamos National Laboratory Technology Transfer to Legacy Management: Tracer Testing and Isotopic Analyses in Conjunction with Field-based Experiments of Periodic Flooding Events and Subsequent Mobilization of Uranium in Groundwater.
- Geological Society of America, Graduate Student Research Grant, #11472-16, \$1,375 (2016) - In situ assessment of matrix diffusion using a single-well injection and extraction method.

TEACHING EXPERIENCE

- Instructor, Physical Hydrogeology, UW-Milwaukee (2019 to current)
- Guest Lecturer, Principles of Hydrogeology, UT-Knoxville (2016 to 2017)
- Field Instructor, Principles of Hydrogeology, UT-Knoxville (2016)
- Teaching Assistant, Principles of Hydrogeology, UT-Knoxville (2015)
- Field Assistant, Principles of Hydrogeology, UT-Knoxville (2013 to 2015)
- Tutor, Human Physiology, Contra Costa College (2004 to 2005)
- Tutor, Human Anatomy, Contra Costa College (2004 to 2005)

SELECT PRESENTATIONS

- **Paradis, C.J.**, McKay, L.D., Hazen, T.C. Exposure history dependence of microbial mediated substrate transformation in groundwater. Poster presentation at the National Ground Water Association Groundwater Summit in Nashville, Tennessee, USA, December 4, 2017
- **Paradis, C.J.**, Mahmoudi, N., Jagadamma, S., Driver, D.A., O'Dell, K.B., Schaeffer, S.M., Hazen, T.C. Response of soil respiration and microbial community structure to simulated heavy precipitation and drought in a Lexington silt loam. Poster presentation at the 16th International Symposium of Microbial Ecology in Montreal, Quebec, CA, August 23, 2016
- **Paradis, C.J.**, Stokes, A., Gilley, B., Feig, A., Atchison, C. The impact of inclusion: A student's perspective of participating in a fully-accessible geoscience field course. Oral presentation at the Earth Educators' Rendezvous in Boulder, Colorado, USA, July 14, 2015
- **Paradis, C.J.**, Jagadamma, S., Fortney, J., Mehlhorn, T., Parker, J., Watson, D.B., McKay, L.D., Hazen TC. Simultaneous Push-Pull Tests to Investigate Exposure History Dependence of Electron Donor Biodegradation Rates. Oral presentation at the Annual Geological Society of America Meeting in Vancouver, British Columbia, CA, October 19, 2014
- **Paradis, C.J.**, Felice, M.L., de Sieyes, N.R., Schmidt, R., Mackay, D.M. Laboratory Assessment of Enhanced Anaerobic Benzene Biodegradation. Oral presentation at the 8th International Association of Hydrological Sciences Groundwater Quality Conference in Gainesville, Florida, USA, April 24, 2013
- **Paradis, C.J.**, Mackay, D.M., Holland, R., Schmidt, R., Mork, E., Rasa, E., Scow, K.M., Buscheck, T. Accelerated Natural Sulfate Reduction to Enhance Biodegradation of Persistent Petroleum Hydrocarbon Plumes. Oral presentation at the Battelle Conference for Chlorinated and Recalcitrant Compounds in Monterey, California, USA, May 21, 2012

SERVICE

- Reviewer, Journal of Hydrology (2019 to current)
- Reviewer, Groundwater Monitoring & Remediation (2019 to current)
- Session chair, Field Tracer Studies for Aquifer Characterization, Annual GSA Meeting, Phoenix (2019)
- Research mentor, Cody Hudson, B.S. Geology, UT Knoxville (2017)
- Research mentor, Emma Dixon, B.S. Civil & Environmental Engineering, UT Knoxville (2017)
- Research mentor, Benjamin Adams, B.S. Geology, UT Knoxville (2014 to 2016)
- Research mentor, Damani Driver, B.S. Geology, UT Knoxville (2013 to 2015)
- Committee member, Hydrologic Sciences Graduate Group Seminar Series, UC Davis (2011 to 2012)
- Guest speaker, Alumni Student Careers Forum, UC Berkeley (2007 to 2010)
- Co-founder and Treasurer, Geological Association at Berkeley, UC Berkeley (2005 to 2007)

AFFILIATIONS

- Member, American Association of Petroleum Geologists (2015 to Current)
- Member, International Association of Hydrogeologists (2015 to Current)
- Member, International Association Geoscience Diversity (2013 to Current)
- Member, Geological Society of America (2013 to Current)
- Member, American Geophysical Union (2011 to Current)
- Member, California Groundwater Association (2010 to Current)
- Member, National Ground Water Association (2009 to Current)

WEB LINKS

- [UWM Geosciences](#)
- [Research Gate](#)
- [Google Scholar](#)
- [ORCID](#)

METRICS (Google Scholar)

- Citations = 155
- h-index = 5

METRICS (Web of Science)

- Citations = 96
- h-index = 4