

Devin Mannix

Curriculum Vitae

Illinois State Water Survey
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Education

Doctoral Student in Geology	2024
University of Illinois Urbana-Champaign	
Master of Arts in Geology	2013
Southern Illinois University Carbondale, Department of Geology	
Bachelor of Science in Geology	2010
Binghamton University, Department of Geological Sciences and Environmental Studies	

Professional Appointments

Illinois State Water Survey	
Assistant Scientist, Hydrogeology	February 2019 – Present
Hydrogeologist	June 2018 – February 2019
Visiting Hydrogeologist	July 2013 – June 2018
Southern Illinois University Carbondale	
Research Assistant	August 2012 – June 2013
Teaching Assistant	August 2011 – May 2012
Master's Fellow	August 2010 – August 2011

Memberships

International Environmental Modelling and Software	2018 – Present
International Association for Mathematical Geosciences	2014 - Present
Illinois Groundwater Association	2013 – Present
Geological Society of America	2010 – Present

Training and Additional Coursework

1. Parmentier, B. (2019). Geospatial Analysis and Data Science Python workshop. American Association of Geographers Annual Meeting, Washington, DC., on April 6, 2019.
2. Kaminski, D., and M. Varljen (2017). Practical Considerations for Groundwater Monitoring Well Design, Construction, and Sampling Programs. Groundwater Week, Nashville, TN on December 8, 2017.
3. Bethke, C. (2017). ChemPlugin with Python workshop. March 27-April 19, 2017. Aqueous Solutions, Champaign IL.
4. Druhan, J. (2016). Contaminant Fate and Transport. GEOL 571, UIUC Fall 2016.
5. Bethke, C. (2014). Reactive Transport Modeling workshop. May 9-10, 2014. Aqueous Solutions, Champaign, IL.

Publications

1. Kelly, W.R., D.B. Abrams, V. Knapp, Z. Zhang, B. Dziegielewski, D.R. Hadley, G.S. Roadcap, **D.H. Mannix**, Y. Lian, S.C. Meyer (2019). Water Supply Planning: Kankakee Assessment of Water Resources for Water Supply (2019-07). Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
2. Abrams, D. B., **D.H. Mannix**, D.R. Hadley, & G.S. Roadcap (2018). Groundwater Flow Models of Illinois: Data, Processes, Model Performance, and Key Results. (2018-04). Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
3. Kelly, W.R., D.B. Abrams, H. V. Knapp, Z. Zhang, B. Dziegielewski, D.R. Hadley, G.S. Roadcap, **D.H. Mannix**, Y. Lian, S.C. Meyer, J.F. Thomason (2018). Water Supply Planning: Middle Illinois Assessment of Water Resources for Water Supply Final Report (2018-02). Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
4. **Mannix, D.H.**, D.B. Abrams, D.R. Hadley, and G.S. Roadcap (2018). Conceptualizing leakage and storage contributions from long open interval wells in regional deep basin flow models. Hydrologic Processes.
5. Kelly, W.R., S.V. Panno, K.C. Hackley, D.R. Hadley, and **D.H. Mannix** (2018). Paleohydrogeology of a Paleozoic Sandstone Aquifer within an Intracratonic Basin: Geochemical and Structural Controls. Journal of Hydrology.
6. **Mannix, D.H.**, D.B. Abrams, G.S. Roadcap, D.R. Hadley, and W.R. Kelly (2017). Groundwater Depletion in Chicago's Southwestern Suburbs (MP 208). Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
7. Abrams, D.B., G.S. Roadcap, and **D.H. Mannix** (2017). Developing Potentiometric Surfaces and Flow Fields with a Head-Specified MODFLOW Model. Groundwater.
8. Walton, K., D. Hadley, **D. Mannix**, 2016. Shallow Groundwater Sampling in Kane County, 2015 (2016-04). Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
9. Abrams, D.B., D.R. Hadley, **D.H. Mannix**, G.S. Roadcap, S.C. Meyer, K.J. Hlinka, K. L. Rennels, K.R. Bradbury, P.M. Chase, and J.J. Krause (2015). Changing Groundwater Levels in Northern Illinois and Southern Wisconsin: Impacts on Available Water Supply (2015-02). Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
10. Hadley, D.R., D.B. Abrams, **D.H. Mannix**, S.C. Meyer, and G.S. Roadcap (2015). Changing Groundwater Levels in the Cambrian-Ordovician Sandstone Aquifers of Northern Illinois, 1980-2014. Fact Sheet 1 from Contract Report 2015-02. Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.
11. **Mannix, D.H.**, D.B. Abrams, D.R. Hadley, G.S. Roadcap, and W.R. Kelly (2015). Groundwater Availability in Northeastern Illinois from Deep Sandstone Aquifers. Fact Sheet 2 from Contract Report 2015-02. Illinois State Water Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign. Champaign, IL.

Manuscripts in Progress or Under Review

1. Mannix, D.H., and Birkenholtz, T. (in preparation). Uncertainty in at-risk water supplies of northeast Illinois: Participatory groundwater models for future water-supply scenarios. *Geoforum* special issue.
2. **Mannix, D.H.**, D.B. Abrams, and D.R. Hadley (in preparation). Bracketing and validating sustainable yield in a confined multi-aquifer system using water level observations and MODFLOW.
3. **D.H. Mannix**, Abrams, D.B., Jones, A., Cullen, C. (in preparation). Multi-aquifer wells paper

Conference Presentations

1. American Association of Geographers Annual Meeting (2019). Uncertainty in At-Risk Water Supplies of Northeast Illinois: Participatory groundwater models for future water-supply scenarios. Washington, DC on April 5, 2019. Oral presentation.
2. Geological Society of American 130th Annual Meeting (2018). Multi-aquifer simulations and planning for sustainable yield in the Cambrian-Ordovician Sandstone Aquifers of northern Illinois. Indianapolis, IN on November 7, 2018. Oral Presentation.
3. Illinois Rural Water Association 14th Annual Northern Conference (2018). Aquifer drawdown: The state of groundwater in Illinois. Rockford, IL on October 23, 2018. Oral presentation.
4. 9th International Congress on Environmental Modelling and Software (2018). Using a suite of modeling approaches to gain insight into complex models. Fort Collins, CO on June 26, 2018. Oral presentation.
5. NGWA Groundwater Summit (2017). Unmanaged Aquifer Recharge: Revisiting Sustainable Yield in Northeast Illinois. Nashville, TN on December 5, 2017. Oral presentation.
6. WATERCON2017 (2017). The Illinois Groundwater Flow Model. Springfield, IL on March 22, 2017. Oral presentation.
7. National Ground-Water Monitoring Network / NGWA Groundwater Expo Joint Meeting (2016). Illinois Groundwater Monitoring Network. Las Vegas, NV on December 6, 2016. Oral presentation.
8. Illinois Water (2016). Lessons learn in northern Illinois: Using data to improve our understanding of groundwater flow. Champaign, IL on October 26, 2016. Oral presentation.
9. GSA North-Central Section Meeting (2016). Pouring Water Down Our MAWs: Desaturation of Aquifers in an Artificially Connected System. Champaign, IL on April 19, 2016. Oral presentation.
10. Illinois Groundwater Association Fall Meeting (2015). Impacts of declining Cambrian-Ordovician heads in northeastern Illinois. Naperville, IL on October 9. Oral presentation.
11. MODFLOW and More: Modeling a Complex World (2015). Multi-aquifer systems with interformational boreholes: Conceptualization and calibration. Colorado School of Mines, Golden, CO on June 23, 2015. Oral presentation.

Funded Grants

“Expansion of the National Groundwater Monitoring Network in Illinois to Fill in Spatial Data Gaps.” United States Geological Survey, 9/1/2016 to 8/31/2018, \$27,867.