Curriculum Vitae

# Benjamin J. Currens ben.currens@uky.edu

Objective	Combine quantitative hydrogeology and geochemistry with local knowledge to aid the development of science-based water management.
Education	Master of Science degree candidate Earth and Environmental Science University of Kentucky, Anticipated completion: May 2016
	<b>Bachelor of Science in Earth and Atmospheric Science – Geological Sciences and Development Sociology</b> Cornell University, <b>Dec 2011</b> <i>Cum Laude</i>
	Associates in Science – Math and Science State University of New York - Tompkins Cortland Community College, May 2009
<b>Professional Experien</b>	nce
-	<ul> <li>* Research Specialist: Department of Development Sociology, Cornell University, December 2011 – July 2013</li> <li>* U.S. Army: Calvary Scout Section Sergeant, Rear Detachment NCOIC 1-33 Calvary Regiment, Rear Detachment NCOIC A Troop 1-33 Calvary Regiment, Mortar Platoon Section Sergeant A Company 3-187 RSTA/ Alpha Company 3- 187 Infantry Regiment, Unit Prevention Leader A Troop 1-33 Calvary/A Company 3-187 Infantry Regiment, August 2000 – December 2006</li> </ul>
Research Experience	<ul> <li>*Thesis Research: Numerical modeling of groundwater flow, stable isotope transport and diffusion within the Lower Wilcox aquifer of the Mississippi Embayment Aquifer System.</li> <li>*Post-baccalaureate: Impact of mid-fiscal year 2011 budget recission on New York State Supplemental Nutrition Educators. Cornell University, Primary Investigators: Dr. Tom Hirschl and Dr. Jamie S. Dollahite</li> <li>* Post-baccalaureate: Estimated quantification of global productive lands and change in global productive lands, 2000 – 2100. Cornell University, Primary Investigator: Dr. Charles Geisler</li> <li>* Post-baccalaureate: Mapping Poverty in Upstate New York. Cornell University, Primary Investigator: Dr. Tom Hirschl</li> <li>* Undergraduate Research: Geochemistry of the Union Springs Formation of the Marcellus Shale Subgroup. Cornell University, Faculty Advisors: Dr. Teresa Jordan and Dr. Louis Derry</li> <li>* Undergraduate Research: Role of Anthocyanin in UV Protection. Tompkins Cortland Community College, Faculty Advisor: Dr. Kelly Wessell</li> <li>* Undergraduate Research: Performing the Ivy League Role. Tompkins Cortland Community College, Faculty Advisor: Dr. Jeanne Cameron</li> </ul>

\* **Field Course**: Geologic Field Mapping, Central Andes, Argentina. Faculty Advisor: Dr. Sue Kay and Dr. Matt Pritchard

## **Teaching Experience**

- \* Teaching Assistant: Endangered Planet Intro to Env. Geology, EES 110
- \* Teaching Assistant: Sustainable Planet Geo. of Nat. Resources, EES 120
- \* Teaching Assistant: Geology for Teachers, EES 160
- \* Teaching Assistant: Hydrology and Water Resources, EES 385
- \* Teaching Assistant: Quantifying the Bluegrass Water Supply, EES 185

## **Other Publications**

**\*First Author: Currens, Benjamin**. 2014. *Common Hazards in Karst Terrain* (AEN-126). University of Kentucky College of Agriculture, Food and Environment Cooperative Extension Service.

**\*Second Author**: Geisler, Charles and **Benjamin Currens.** 2014. *Peak Farmland: Revealed Truth or Recreancy?* Research in Social Problems and Public Policy. Vol.21, 2014

**\*Working Paper: Currens, Benjamin** and Thomas A. Hirschl. July 2012. *Poverty in Tompkins County: Correcting Inflated Rates Due to Misclassification of College Students.* Program Policy Education and Action for Fighting Poverty and Economic Hardship in Upstate New York, Department of Development Sociology, Cornell University.

\* Working Paper: Currens, Benjamin and Thomas A. Hirschl. July 2012. *Housing Stress in Hamilton County, New York.* Program Policy Education and Action for Fighting Poverty and Economic Hardship in Upstate New York, Department of Development Sociology, Cornell University.

\* Working Paper: Currens, Benjamin and Thomas A. Hirschl. Nov 2012. *Poverty and Housing Stress in Schuyler County, New York.* Program Policy Education and Action for Fighting Poverty and Economic Hardship in Upstate New York, Department of Development Sociology, Cornell University.

\*Contributor: Field Site Map for Ricketts, K. 2012. What is the 'Value' in the Value Chain Approach? Smallholder Risk Assessment, Mitigation, and Coping Behavior Among High Value and Conventional Cocoa Chains in Ghana. M.S Thesis, Cornell University.

#### **Poster Presentations**

**Currens, Benjamin**, Fryar, Alan, Sawyer, Audrey, Parris, Thomas, and Junfeng Zhu. *Deuterium and Oxygen-18 diffusion in a confined aquifer: a numerical model of stable isotope diffusion across aquitard-aquifer boundaries.* American Geophysical Union Fall Meeting, December 2014.

**Currens, Benjamin J.** An Examination of Organic Carbon and Trace Elements within the Union Springs Formation of the Marcellus Subgroup. Engineering Learning Initiatives Undergraduate Research Poster Session, April 2012.

## **Oral Presentations**

**Currens, Benjamin**, Fryar, Alan, Sawyer, Audrey, Parris, Thomas, and Junfeng Zhu. *Deuterium and Oxygen-18 diffusion in a confined aquifer: a numerical model of stable isotope diffusion across aquitard-aquifer boundaries.* University of Kentucky Earth and Environmental Science Rast-Holbrook Seminar Series, November 2014.

Cameron, Jeanne and **Benjamin J. Currens**. Oct 2008. *Performing the Ivy League Role*. New York State Sociological Association 56<sup>th</sup> Annual Conference, Buffalo, NY.

Awards

## \* National Science Foundation Graduate Research Fellowship, 2014

\* Geological Society of America, Research Grant, 2014

\* Engineering Learning Initiatives, Research Grant 2011

\* New York State Sociological Association, Best Undergraduate Paper 2008

## **Membership and Service**

\* **Kentucky Geological Survey**: Volunteer, Lexington, KY, Water Resource Section, May 2015 - Present

\* United States Geological Survey: Volunteer, Ithaca, NY, Water Science Center, December 2011 – 2013

\* Cornell Outing Club: Caving Chair, May 2007 – May 2010

\* National Park Service: Volunteer, Jewel Cave National Monument, December 2005

\* National Park Service: Volunteer, Mammoth Cave National Park, June 2004

\* **Secretary**: Clarksville Underground, National Speleological Society Grotto, March 2005 – March 2006

## **Professional Memberships**

\* American Geophysical Union

\* American Institute of Professional Geologists

\* Alpha Kappa Delta

\* Geological Society of America

\* Phi Theta Kappa

\* National Speleological Society

\* National Groundwater Association

## **Additional Skills and Information**

\* **Technical:** Microsoft Office, ArcGIS, Atlas.Ti, Qualtrics, Python, HTML, CSS, SPSS, X-ray Fluorescence, X-ray Diffraction, Geologic Field Mapping, PCR techniques

\* Linguistic Proficiency: Spanish (Introductory)

\* **Personal Interests:** Traveling, Creative Writing – Short Stories, Playwriting, Outdoor Activities (Fishing, Cycling, Rock Climbing, Caving)

**References** Available Upon Request