

# ANDREA LAUREN-TAYLOR CREIGHTON

Dept. of Geology & Geophysics  
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## EDUCATION

- 2014-           **Ph.D. Geophysics**, Graduate Assistant, Department of Geology & Geophysics, University of Wyoming, Laramie, Wyoming. Advisor: Dr. Andrew Parsekian
- 2010-2014    **B.S. Geology**, *cum laude*, Department of Environmental Engineering & Earth Science, Clemson University, Clemson, South Carolina. **Minor: Modern Languages – Chinese.**  
**GPA: 3.71**
- 2012           **Exchange Student**, Dalian University of Technology, School of International Education, Dalian, Liaoning, China

## WORK EXPERIENCE

- 2014-           **Graduate Assistant**, University of Wyoming, Laramie, Wyoming  
Research focus in utilizing surface nuclear magnetic resonance to understand the hydrology of thermokarst lakes and permafrost thaw.
- 2014, summer **Teaching Assistant**, Summer of Applied Geophysical Experience (SAGE), Los Alamos National Lab, Santa Fe, NM  
Assisted in managing student field execution of multiple geophysical methods. Supervised GPR data analysis done by students.
- 2014, summer **Trip Leader**, Western U.S. Field Study Course, Clemson University  
Leading a summer field course through Southern Utah, guiding trips through national parks and lecturing on the local geology.
- 2013, summer **REU Student**, Summer of Applied Geophysical Experience, Los Alamos National Lab, Santa Fe, NM  
Gained experience in multiple geophysical methods including: seismic reflection and refraction, transient electromagnetics, magnetotellurics, ground-penetrating radar, and magnetics. Inverted TEM data to determine the geothermal potential of a shallow aquifer.
- 2011-2014    **Undergraduate Research Assistant**, Clemson University, Clemson, SC  
Assisted in research on unexploded ordinance detection during infiltration events.
- 2011-2014    **Project Manager**, Creative Inquiry, Clemson University, Clemson, SC  
Designed and constructed an experiment to test the effect of topography on infiltration rate using geophysical methods.
- 2010-2011    **Student Associate**, Bob Campbell Geology Museum, Clemson, SC  
Opened, closed, and ran the museum unsupervised on weekends.

## PRESENTATIONS

**Creighton, A.**, 2014. Using Ground Penetrating Radar to Image Infiltration in Rain Gardens, Clemson University David Snipes Hydrogeology Symposium, Clemson, South Carolina, USA.

**Creighton, A.**, Gulley, A., Bedrosian P., Pellerin L., 2013. Laterally Constrained Inversions of TEM Data from the Buckman Well Field, New Mexico, and the Hydro geological Implications. Council on Undergraduate Research, Arlington, Virginia.

Mangel, A., Moysey, S., **Creighton, A.**, Song, Y., 2013, Time-lapse 3D GPR imaging of a lab-scale forced infiltration experiment, Clemson University David Snipes Hydrogeology Symposium, Clemson, South Carolina.

**Creighton, A.**, Mangel, A., and Moysey, S.M., 2012. Three-dimensional time-lapse infiltration monitoring using multi-channel ground penetrating radar, Geological Society of America Abstracts with Programs, Vol. 44, No. 7, p.250.

Mangel, A., Moysey, S., **Creighton, A.**, Smolka, A., and Finley, M. 2012, Monitoring infiltration in 3D using multi-channel ground-penetrating radar, SEG Technical Program Expanded Abstracts 2012, pp. 1-5, doi: 10.1190/segam2012-1355.1

Mangel, A., Moysey, S., **Creighton, A.**, Smolka, A., Finley, M., 2012, 3D multi-channel GPR imaging of a lab-scale infiltration experiment, Clemson University David Snipes Hydrogeology Symposium, Clemson, South Carolina, USA.

## SKILLS

**Software:** MATLAB, SiTEM & Semdi, WinGLink, GIS, GMS, HYDRUS 1D

**Equipment:** Sensors & Software pulseEKKO Pro GPR system, Zonge 32 ii GDP TEM receiver, GMR, EM 31

## SERVICE

2014	Disaster Action Team- American Red Cross
2013-2014	President- Clemson Geology Club
2013-2014	Vice-President- Environmental Engineering Geophysical Society
2012-2013	Treasurer- Clemson Geology Club
2011-2014	Member- Gamma Sigma Sigma, National Service Sorority

## AWARDS AND ACHIEVEMENTS

2014 Thomas F. Logan Jr. Geology Merit Award, Clemson University  
2013 Jean G. Stillwell Award for Outstanding Junior, Clemson University  
2013 Anadarko/SEG Scholarship  
2013 GSA/ExxonMobil Bighorn Basin Field Award  
2013 GSA/ExxonMobil Field Camp Scholar Award  
2013 National Association of Geoscience Teachers Scholarship for Field Study  
2011-2014 Dolphin Scholarship for Military Children

## PROFESSIONAL SOCIETIES

2013-*now* Environmental & Engineering Geophysical Society  
2013-*now* Society of Exploration Geophysicists  
2012-*now* Geological Society of America