

Sierra Rhaye Ramsey

Geography – Geology 125
Sierra.Ramsey@uga.edu

EDUCATION

M.S., Geology

University of Georgia, Athens, GA.
Expected 2020

B.S. Honors, Geology

Minor: Chemistry

Western Carolina University; Cullowhee, NC. GPA 3.98
2014 – 2018

HONORS & AWARDS

Chancellor's List.

Awarded for a GPA 3.8 or higher.
2014 – 2018.

Dean's List.

Awarded for a GPA 3.5 or higher.
2014 – 2018.

Chancellor's Academic Scholarship.

2016 – 2018.

Undergraduate Academic Project Grant.

A Comparative Look at Lunar Meteorites NWA 8632 and NWA 032
March 2018.

Undergraduate Academic Project Grant.

The Use of Bedrock, Weathering, Soil Chemistry, Soil Morphology, and Soil Particle Size to Explain Stream Water Chemistry Differences across a Headwater Catchment in the Southern Appalachian Mountains.
March 2018.

Undergraduate Academic Project Grant.

Electron Microprobe Analysis on Lunar Meteorite Sample Northwest Africa 8632.
March 2017.

Undergraduate Academic Project Grant.

Serpentinization and its Effects on Olivine Composition in Dunite.
December 2016.

North Carolina National Guard Association Education Foundation Scholarship.

2014 – 2015 Academic Year.

WORK/TEACHING EXPERIENCE

Graduate Lab Assistant, University of Georgia
Earth Processes and Environments
August 2018 – Present

Teaching Assistant, Western Carolina University
Methods in Geology Laboratory.
January 2018 – May 2018.

Teaching Assistant, Western Carolina University
Introduction to Rock-Forming Minerals (Mineralogy) Laboratory.
August 2017 – December 2017.

Teaching Assistant, Western Carolina University
Methods in Geology Laboratory.
January 2015 – May 2015.

SKILLS

Laboratory: Infrared Spectroscopy, Powder X-ray Diffraction and sample preparation, Nuclear Magnetic Resonance, Polarized Light Microscopy.

Software: Microsoft Office Suite, JADE XRD analysis, NUTS Nuclear Magnetic Resonance analysis.

RESEARCH EXPERIENCE

Western Carolina University. Geosciences and Natural Resource Management Department.
Cullowhee, NC 28723.

Extracurricular Research; Electron Microprobe Analysis of Lunar Meteorite NWA 8632.

- Assisted in using an Electron Microprobe to analyze olivine, pyroxene, and chromite compositions via chemical data and backscattered electron images.
- Performed crystal size distributions on olivine and pyroxene.
- Textural analysis of sample via photomicrographs in plane polarized and cross polarized maps

Senior Capstone Thesis; the Role of Weathered and Unweathered Bedrock Chemical Composition and Mineralogy in Producing Varying Streamwater Chemistries in a Headwater Catchment in Western North Carolina.

- Sample collection and preparation.
- Used thin sections, XRD, ICP-OES, and a leaching experiment to determine the effect that bedrock has on producing different stream chemistries on a small spatial scale.

PUBLICATIONS & PRESENTATIONS

Fagan, A.L.; Gross, J.; **Ramsey, S.**; Turrin, B. (2018). Northwest Africa 8632- Recording Young Lunar Volcanism. In *Lunar and Planetary Science Conference*. Abstract no. 2584.

Ramsey, Sierra; Fagan, A.L. (2018). A Comparative Look at Lunar Meteorites NWA 8632 and NWA 032. Poster session presented at:

- The 67th Annual Southeastern Geological Society of America Meeting; 2018 April 12-13; Knoxville, TN.

Ramsey, Sierra; Tatum, Josh; Peeler, Mitchell; Streicher, Mitch; Gannon, J.P. (2018). The Role of Weathered and Unweathered Bedrock Chemical Composition and Mineralogy in Producing Varying Streamwater Chemistries in a Headwater Catchment in Western North Carolina. Poster session presented at:

- The 67th Annual Southeastern Geological Society of America Meeting; 2018 April 12-13; Knoxville, TN.

Ramsey, Sierra; Fagan, Amy. (2017). Electron Microprobe Analysis of Lunar Meteorite NWA 8632. Poster session presented at:

- The 2nd Annual SoCon Undergraduate Research Forum; 2017 Oct 27-29; Spartanburg, SC.
- The 19th Annual Undergraduate Expo and the Graduate Research Symposium; 2017 Mar 29; Cullowhee, NC.

Hurst, Eliza; Mann, Aras; Marlor, Don; **Ramsey, Sierra;** Ross, Andrew; Vascik, Bryce; Lord, Mark; Kinner, David; and Gannon, J.P. (2017). Characteristics of Groundwater – Stream Water Interaction in a Disturbed Headwater Catchment within the Southern Appalachian Mountains. Poster session presented at:

- The 66th Annual Southeastern Geological Society of America Meeting; 2017 Mar 30-31; Richmond, VA.

Ramsey, Sierra; Price, Sean; Earle, Stephanie; Marlor, Don; Mann, Aras; Machen, Eldridge; Pedigo, Richard; Silva, Felipe; Fagan, Amy. (2017) Variations of Olivine Compositions with Distance from a Hydrous Vein. Poster session presented at:

- The 19th Annual Undergraduate Expo and the Graduate Research Symposium; 2017 Mar 29; Cullowhee, NC.

Ramsey, Sierra. (2016). Soil and the Global Food Crisis. *Ink: Chronicles in Composition*. Western Carolina University English Department. 2016-2017 edition.