

# Warner Cribb

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## Professional Experience:

- Professor of Geology - Middle Tennessee State University (2002-present)
- Chairperson, Dept. of Geosciences - Middle Tennessee State University (2013-2019)
- Interim Chairperson, Dept. of Geosciences - Middle Tennessee State University (2011-2013)
- Associate Professor of Geology - Middle Tennessee State University (1997 - 2002)
- Assistant Professor of Geology - Middle Tennessee State University (1993 - 1997)
- Adjunct Lecturer in Geology - Vanderbilt University (1997-1998, 2004-2005, 2017, 2022)
- Environmental Scientist - U.S. Environmental Protection Agency (1985 - 1987)

## Education:

- PhD - The Ohio State University, 1993 (Geology)  
Dissertation: A Petrologic and Geochemical Investigation of the Evolutionary History of Calc-alkaline Magmas, Mount Hood, Oregon
- MS - The George Washington University, 1986 (Geology)  
Thesis: Petrology and Geochemistry of the Loma de Cabrera Batholith, Cordillera Central, Dominican Republic
- BS - Vanderbilt University, 1983 (Geology)

## Instructional Assignments:

- Introduction to Earth Science and Laboratory (on-campus and online formats)
- Mineralogy
- Geology Field Course (Physical Volcanology of the Cascade Range; Geology of the Colorado Plateau)
- Igneous and Metamorphic Petrology
- Inorganic Geochemistry
- Geochemistry of Earth Systems
- Problems in Geology (Directed Research)

### **Administrative Assignments:**

Chair, Dept. of Geosciences (2011-2019): Administration of department budget, scheduling of classes and laboratories, assignment of faculty workload, mentoring of junior faculty, hiring of new faculty, development and implementation of departmental institutional effectiveness plan, development of department strategic plan, development of new undergraduate and graduate academic programs, student recruitment, student advising, coordination and reporting of SACS-required Institutional Effectiveness Reports

President, MTSU Faculty Senate (2010-2011): Administration of senate budget, scheduling and organization of all senate meetings (including Senate Steering Committee, Academic Affairs Liaison Committee, President's Liaison Committee), member of MTSU President's Cabinet, faculty representative to Deans' Council, MTSU representative to Tennessee University Faculty Senates

### **Administrative Accomplishments:**

#### Chair, Department of Geosciences:

- Increase in Department of Geosciences undergraduate major enrollment from 96 to 155
- Increased undergraduate retention rate from 73% to 85%
- Increased enrollment of undergraduate majors from underrepresented groups from 7% to 19%
- Increased enrollment of 1<sup>st</sup> generation undergraduates from 25% to 36%
- Relocation of the Department into renovated classrooms and laboratories
- Redesign of undergraduate Geology and Physical Geography concentrations
- Redesign of new Environmental Science major
- Design and development of new Geosciences MS degree
- Implementation of geology field trip account
- Implementation of geology lab materials account
- 100% approval rate for faculty members who applied for tenure and promotion
- Redesign of geoscience general education curriculum to incorporate classroom-based active learning
- Decrease in average Geosciences general education course DFW rate from ~30% to ~15%

#### President, MTSU Faculty Senate

- Assisted university Provost in developing Academic Affairs response to new state outcomes-based funding formula
- Communicated expectations of new state outcomes-based funding formula to MTSU faculty
- Approval and implementation of campus-wide tobacco-free policy

### **Technical Assignments:**

XRF, PXRD, ICPMS Laboratory (1999- present): Development and management of MTSU analytical geochemistry labs: X-ray fluorescence (XRF), powder X-ray diffraction (PXRD) and inductively coupled plasma mass spectrometer (ICPMS) laboratories: Instruction to students and faculty on use of XRF, PXRD and ICPMS. Development of sample preparation techniques and analytical methodologies. Student and non-MTSU user instruction.

### **Current and Recent Research Interests:**

- Development of new XRF and ICPMS analytical methods for analysis of naturally occurring solids
- Geologic history of lavas of northern Oregon Cascade Range volcanoes
- Effects of mixing of discrete magma bodies on the mineralogy and chemistry of volcanic rocks
- Relationships between magma density, viscosity, crystallinity and volcanic eruptions
- Petrogenesis of intra-graben near-primary basalts in the northern Oregon Cascade Range
- Petrogenetic history of high-pressure and high-temperature metamorphic rocks in the southern Blue Ridge geologic province.

### **Non-MTSU Funding:**

Distributions, Concentrations, and Transport Processes of Toxic Metals Released from TVA Coal-Ash Surface Impoundments into Public Waterways and River Sediments. National Science Foundation (STEP-MT)/College of Basic and Applied Sciences, 2009; \$17,500 (sub-award)

Integration of an Inductively Coupled Plasma Mass Spectrometer into the Undergraduate Concrete and Geology Curricula and Research Programs. (Heather Brown, Principal Investigator; Warner Cribb, Co-Principal Investigator); National Science Foundation. 2005 - 2008; \$122,000.

X-ray Fluorescence Spectrometry: Inter/Intra Applications Applied to Geosciences and Social Science (Warner Cribb, Principal Investigator; Doug Heffington, Co-Principal Investigator). National Science Foundation. 1999-2002; \$92,000.

### **MTSU Funding:**

MTSU Faculty Research Grant - A Petrologic and Geochemical Investigation of the Waldoboro Plutonic Complex, Maine (1993; \$4660)

MTSU Faculty Research Grant - Geochemical Investigation of Pre-eruptive Pressures and Temperatures in Calc-Alkaline Magmas, Mount Hood Volcano, Oregon (1997; \$4510)

MTSU Faculty Research Grant - Isotopic and Ion Microprobe Investigation of the Origin of Granitic Magmas, Southern Maine (1999; \$3900)

MTSU Faculty Research Grant - X-ray Fluorescence Spectrometry: Applications for the Social and Natural Sciences (2000; \$6540)

MTSU Instructional Technologies Development Grant - Development and Implementation of an Introduction to Earth Science (GEOL 1030) Web Site (2000; \$4205)

MTSU Instructional Evaluation and Development Grant - Introduction to Earth Science (2001, \$1042)

MTSU Faculty Research Grant - Distribution and Concentrations of Metals in Stream Sediments Associated with Environmentally Hazardous Mining Practices in the Tennessee Copper Basin (2007; \$4022)

**Supervised MTSU Undergraduate Research Culminating in Senior Thesis, Honors Thesis, or Conference Presentation:**

Josh Gordon - Influences of Changing Lunar Cycle and Barometric Pressure on the Eruption of Natrocarbonatite Lava, Ol Doinyo Lengai Volcano, Tanzania (2006)

Richard Anderson - Geochemical Investigation of Petro-tectonic Setting(s) of Felsic Igneous Rocks, St. Francois Mountains, Missouri (2007)

Aaron Mayfield - Distribution and Behavior of Toxic Metals in Tennessee Copper Basin Stream Sediments (2007)

Jason Pomeroy - Geochemical Stratigraphy and Magma Chamber Dynamics at Fort Rock Tuff Ring, Oregon (2009)

Will Carpenter - Geochemical Stratigraphy and Magma-Crust Interaction at Fort Rock Tuff Ring, Oregon (2009)

Emily Cunningham\* - Geochemical and Petrographic Investigation of Open System Magmatic Processes at Small Volcanic Centers, North-central Oregon Cascade Range (2016)

\*MTSU Undergraduate Research Award Recipient

Gail Cunningham\* - Rheological Properties of Mt. Hood Magmas. (2018)

\*MTSU Undergraduate Research Award Recipient

Brannon Cox and Lily Medley\*\* - Petrogenesis of Near-primary Lavas Erupted Within an Intra-arc Graben in the Northern Oregon Cascade Range (2018-19)

\*\* American Association of Petroleum Geologists Award Recipient

Lily Medley, Emily Osborne, Jennifer Putnam – The Cloud Cap Andesites: Geochemical and Petrographic Investigation of a Flank Eruption at Mt. Hood, Cascade Range Volcanic Arc, Oregon (2020-21)

Jackson Oakey – Very Sticky Stuff: Rheological Adventures in Volcanic Plumbing Systems (2020-21)

Braleigh Beshears, Michele Dobson – Where Did Those Volcanoes Come From? A Preliminary Investigation of Intra-Volcanic Arc Magma Formation in the Central to Northern Oregon Cascade Range (2020-21)

Katie Baumann\* and Hannah Bates\* – Geochemical and Mineralogical Investigation of Metamorphic Rocks at Glade Gap, Chunky Gal Mountain in the Blue Ridge Mountains of Western North Carolina (2022)

\* Recipients of MTSU Undergraduate Research Award and Outstanding Poster Award at 2022 Geological Society of America Sigma Gamma Epsilon Undergraduate Research Symposium.

### **Professional and University Service:**

- MTSU General Education Committee (2020-2023)
- MTSU College of Basic and Applied Sciences Committee on Diversity, Equity, and Inclusion (2020-2022)
- MTSU Radiation Safety Committee (2017-present)
- Geological Society of America Campus Representative (2001-present)
- Faculty Advisor to MTSU chapter of Sigma Gamma Epsilon, The National Earth Science Honorary Society
- MTSU College of Basic and Applied Sciences Committee on Student Retention (2020-2022)
- MTSU Faculty Appeals Committee (2020-2022)
- MTSU Learning Management System Review Committee (2019 - 2020)
- MTSU College of Basic and Applied Sciences Teaching Award Committee (2016-2018)
- MTSU Instructional Workload Committee (2017-18)
- MTSU College of Basic and Applied Sciences Awards Committee (2017-18)
- Deans and Chairs Conference on the Future of Undergraduate Geoscience Education (2016 – 2018, Austin TX)
- MTSU Faculty Senate, Past President (2011-2012)
- MTSU Faculty Senate, President Elect (2009-2010)
- Murfreesboro City Schools - Camp PRISM (2009-2012)
- MTSU Faculty Senator, Department of Geosciences (2006-2009)
- MTSU President's Cabinet (2010-11)
- MTSU Academic Affairs Liaison Committee (2009-2012)
- MTSU President's Liaison Committee (2009-2012)
- MTSU Dean's Cabinet (2010-11)
- MTSU Leadership Council (2009-2019)
- MTSU Instructional Technology Committee (2010-2012)
- MTSU Computer Executive Committee (2010-2011)
- MTSU Committee on General Education (2010-2011)

- MTSU Diversity Committee (2010-2011)
- MTSU Environmental Health and Safety Committee (2010)
- MTSU Alumni Board (2010-11)
- MTSU Representative to Tennessee University Faculty Senates (2009-2011)
- MTSU College of Liberal Arts, Dean Search Committee (2010)
- MTSU Walker Library, Dean Search Committee (2010)
- MTSU Chapter of AAUP, President (2012-2013)
- MTSU Academic and Instructional Review Workgroup (2008-2009)
- MTSU Academy for Young Scientists (2007)
- MTSU Council on Science and Math Education (1995-1998)
- MTSU Committee on Academic Appeals (1996-1998)
- MTSU Committee on Admissions, Standards and General Studies (1997-1999)
- Science Olympiad (1995-1997)
- MTSU Traffic Committee (1995-1997)
- MTSU Energy Council (1994-1996)
- American Geophysical Union Technical Session Chair (1994 Spring and Fall Meetings)
- Ronald McNair Scholar, Advisor (2000-2001, 2007-2008)

**Professional Memberships:**

- American Geophysical Union
- Geological Society of America
- The Geochemical Society
- National Association of Geoscience Teachers
- International Association for Geoscience Diversity

**Honors and Honorary Society Memberships:**

- MTSU Bob Womack Award - awarded to the “faculty member who has made a significant contribution to the classroom” by the University Student Government Association, Middle Tennessee State University (2018)
- MTSU Commencement Speaker (August 2011)
- Sigma Gamma Epsilon, The National Earth Science Honorary Society (2007 - present)
- Ohio State University - Presidential Fellowship (1992 -1993)
- Vanderbilt University - Outstanding Geology Major (1983)

**MTSU Undergraduate Advisees/Graduate Schools Attended**

Betsy Gorisch	BS, 1994	Vanderbilt University
Clark Cropper	BS, 1995	The University of Tennessee
Andrew Scott	BS, 1997	Southern Illinois University
Scott Kaufmann	BS, 1997	Vanderbilt University
Kelly Woody	BS, 2000	SUNY, Stony Brook

Whitney Nelson	BS, 2001	The University of Tennessee
Steve Lehner	BS, 2002	Vanderbilt University
Jason Powell	BS, 2003	Southern Illinois University
Scott Crombie	BS, 2004	Vanderbilt University
Beverly Buchanan	BS, 2004	Northern Arizona University
Brian Cosky	BS, 2004	Miami of Ohio University
Roberta Challener	2004,2006	Vanderbilt University, Univ. Alabama at Birmingham
Josh Gordon	BS, 2006	University of Memphis
Catherine Cox	BS, 2007	University of Oklahoma
Jessica Beard	BS, 2008	University of Notre Dame
Richard Anderson	BS, 2008	Northern Illinois University
Matt Dede	BS, 2008	University of Tennessee Space Institute
Aaron Mayfield	BS, 2009	Central Washington University
Brad Anderson	BS, 2009	University of Toledo
Jennifer Pickering	BS, 2010	Vanderbilt University
Tommy Hartzog	BS, 2010	Vanderbilt University
Michael Laneville	BS, 2010	University of Akron
Jordon Graw	BS, 2010	University of Memphis, University of Alabama
Paul Wilcox	BS, 2010	University of Cincinnati, University of Alaska
Miller Wylie	BS, 2010	University of Notre Dame
Matt Cooley	BS, 2012	University of Memphis
Lauren Camfield	BS, 2012	Wesleyan University
Matt Greenwood	BS, 2013	University of Memphis
Alex Ward	BS, 2013	University of Memphis
Emily Anderson	BS, 2013	Northern Arizona University
Caitlin Shannon	BS, 2013	University of Oklahoma
Tori Worrell	BS, 2014	Baylor University
Aaron Morrison	BS, 2014	University of Missouri
Shannon Rentz	BS, 2015	Missouri State University
Briana Vidal	BS 2016	Cornell University
Mendy Lovelady	BS 2016	University of Oklahoma
JP Finnegan	BS 2016	University of Toledo
Tyler Smith	BS 2016	Middle Tennessee State University, Auburn University
Bishop Wagener	BS 2016	Middle Tennessee State University
Emily Cunningham	BS 2018	University of Missouri, University of Utah
Gail Choisser	BS 2019	University of Louisiana
Michele Dobson	BS 2020	Ohio University
Jackson Oakey	BS 2021	University of Georgia

## **Safety Training and Certifications**

- Radiation Safety (Tennessee Dept. Environment and Conservation): Certified to inspect ionizing radiation laboratory equipment and to submit safety reports to TDEC; knowledge of risks and risk management associated with ionizing radiation in laboratory settings.
- First Aid Certification (Red Cross/OSHA): Adult First Aid/CPR/AED
- Laboratory and Chemical Safety (Vector Solutions) – Eye and Face Protection, Safety Data Sheets, Science Lab Safety, Science Laboratory Chemical Spills

## **Publications, Conference Presentations and Abstracts (\*student authors)**

Baumann\*, K., Bates\*, H. and Cribb, W., 2022. Petrologic investigation of metamorphic rocks at Glade Gap, Chunky Gal Mountain in the western North Carolina Blue Ridge Mountains. Proceedings of the Tennessee Academy of Sciences.

Baumann\*, K., Bates\*, H. and Cribb, W. 2022. Petrologic investigation of metamorphic rocks at Glade Gap, Chunky Gal Mountain in the western North Carolina Blue Ridge Mountains. Geological Society America Abstracts with Programs, Vol. 54, 5.

Rhodes, S., Cribb, W., Taufour, V., Patterson, D., Seifu, D., Kamali, S. and Neupane, S., 2022. Iron encapsulated carbon nanotube composites with enhanced magnetic properties. Journal of Physics and Chemistry of Solids, Vol. 161.

Wang, S., Morgan, D., Miller, E., Megerian, C., Grunow, A., and Cribb, W., 2021. Changes in Glacial Flow Patterns and Provenance of the Mid-Miocene in the Friis Hills and Olympus Range, Mcmurdo Dry Valleys, Antarctica. American Geophysical Union, New Orleans.

Miller, E., Morgan, D., Wang, S., Megerian, C., Raff, J.L., Harwood, D., Grunow, A. and Cribb, W., 2021. Provenance of the Sirius Till from Tillite Spur in the Reedy Glacier area, Antarctica, determined by LA-ICP-MS of detrital zircon. American Geophysical Union, New Orleans.

Megerian, C., Morgan, D., Wang, S., Miller, E., Raff, J.L., Cribb, W., and Balco, G., 2021. Provenance of Glacial Till and Beach Sand in the Cape Cod Area. American Geophysical Union, New Orleans,

Oakey, J., Medley, L.R., Cox, B. and Cribb, W., 2021. Very Sticky Stuff: Rheological Adventures Within the Mount Hood Magmatic Plumbing System. Geological Society of America Abstracts with Programs Vol 53, No. 6.

Zoldaz, F., Rhodes, S., Moilenan, A., Patterson, D., Cribb, J., Chapagain, P., Seifu, D., Taufour, V., Kamali, S. and Neupane, S., 2020. Enhanced magnetic properties of aluminum oxide nanopowder reinforced with carbon nanotubes. Journal of Nanoparticle Research 22, 157.



Morgan, D., Miller, E., Miranda, E., Edwards, K., Liu, J., Cribb, W., Bergelin, M., Putkonen, J. and Balco, G. 2020. Consistent flow patterns of the Argosy Glacier determined from the provenance of glacial till in ONG Valley, Antarctica. Geological Society of America Abstracts with Programs. Vol 52, No. 6

Morgan, D.J., Rimmer, E., Miller, E., Miranda, E., Grant, E., Balco, G., Cribb, W., Bergelin, M. and Putkonen, J., 2020. Exposure Age, provenance, and weathering of glacial tills ONG Valley, Antarctica. Scientific Committee on Antarctic Research Open Science Conference, Tasmania Australia.

\*Medley, L., Cox, B. and Cribb, W., 2019. Geochemical and petrographic attributes of lavas erupted at small volcanic centers in northern Oregon; implications for magma formation within an intra-arc graben. Proceedings of the Tennessee Academy of Sciences, Annual Meeting.

Winsett, J., Moilanen, A., Paudel, K., Kamali, S., Ding, K., Cribb, W., Seifu, D. and Neupane, S., 2019. Quantitative determination of magnetite and maghemite in iron oxide nanoparticles using Mössbauer spectroscopy. Springer Nature Applied Sciences. 1:1636  
<https://doi.org/10.1007/s42452-019-1699-2>

\*Cox, B, \*Medley, L. and Cribb, W., 2019. Geochemical and petrographic attributes of lavas erupted at small volcanic centers in northern Oregon; implications for magma formation within an intra-arc graben. Geological Society of America Abstracts with Programs. Vol. 51, No. 5.

\*Choisser, A and Cribb, W., 2018. Insights into interrelationships among density, viscosity, crystallinity and chemical composition within hypocrySTALLINE intermediate lavas, Mt. Hood Volcano, Oregon. Geological Society of America Abstracts with Programs. Vol. 50, No. 6

\*Choisser, A and Cribb, W., 2018. Insights into interrelationships among density, viscosity, crystallinity and chemical composition within hypocrySTALLINE intermediate lavas, Mt. Hood Volcano, Oregon. Geological Society of America Abstracts with Programs. Vol. 51, No. 4

\*Cunningham, E. and Cribb, W., 2017. Petrographic and geochemical investigation of magma chamber processes beneath small Quaternary volcanic centers between Mt. Jefferson and Mt. Hood volcanoes, Cascade Range volcanic arc. American Geophysical Union Fall Meeting. New Orleans.

\*Anderson, J., Lobegeier, M., ElKadiri, R., \*Paladino, B., \*O'Toole, K., \*Robinson, C. and Cribb, W. Effects of a rapidly urbanizing environment on water quality: a case study from Murfreesboro TN. GEOL. Soc. Abstracts with Programs, Vol 49. 6. Seattle.

\*Cunningham, E. and Cribb, W., 2017. Petrologic investigation of magma mixing beneath small quaternary volcanic centers, northern Oregon Cascade Range. Geol. Soc. America Abstracts with Programs Vol 49, No. 6. Seattle.

\*Sharp, E., Claiborne, L., \*Foley, M. and Cribb, W., 2017. Petrography and geochemistry of Mt. St. Helens inclusions and host dacites: implications for magma transport and storage beneath arc volcanoes. Geol. Soc. America Abstracts with Programs Vol 49, No. 4. (Honolulu)

\*Cunningham, E., \*Corey, A., \*Smith, T. and Cribb, W., 2017. Petrographic and geochemical investigation of magmatic processes at Olallie, Pinhead and Clear Lake Buttes, northern Oregon Cascade Range. Geol. Soc. America Abstracts with Program Vol 49, No. 2.

Claiborne, L.L., Miller, C.F., Lang, N., Cribb, W., McDowell, S.M. and \*Foley, M., 2016. Before and after a supervolcano: REU investigations of the evolution of magmatism in the southern Black Mountains Volcanic Center, AZ, surrounding the Peach Spring Tuff supereruption. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Collins, E., \*Schlaerth, H.L., Miller, C., Claiborne, L.L., \*Foley, M. and Cribb, W., 2016. Geochemical and petrologic investigation of open-system processes in post-supereruption Meadow Creek trachyte, southern Black Mountains, AZ. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

Miller, C.F., Claiborne, L.L., Lange, N.P., Schwat, E.L, Cribb, W. and \*Foley, M., 2016. Geology of Meadow Creek Basin, southern Black Mountains, Arizona: Record of post-eruption volcanism (REU project, 2016). Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Miranda, E., Morgan, D., Putkonen, J., Balco, G., and Cribb, W., 2016. The provenance of glacial till deposited in ONG Valley, central Transantarctic Mountains determined by LA-ICPMS of detrital zircon. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Scheland, C., \*Wood, E.M., Miller, C.F., Claiborne, L.L., \*Foley, M. and Cribb, W., 2016. Explosive silicic volcanism preceding the Peach Spring Tuff supereruption, Part 2: Magmatic processes recorded by petrochemistry. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Schlaerth, H.L., \*Collins, E., Miller, C.F., \*Foley, M., Claiborne, L., and Cribb, W., 2016. Petrologic investigation of the enclave-bearing trachydacite to rhyolite Antelope Lava, southern Black Mountains, AZ. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Smith, V., \*Williams, S.G., \*Helfrich, A.L., Miller, C.F., \*Foley, M. and Cribb, W., 2016. Geochemical and petrographic relations between mafic intrusions in post-Peach Spring Tuff deposits in the southern Black Mountains, Meadow Creek Basin, near Oatman, Arizona. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Wallrich, B., \*Schwat, E.L., \*Thompson, I.P., Miller, C.F., Claiborne, L. and Cribb, W., 2016. Sitgraves Tuff: Insights into the evolution of a post supereruption high silica rhyolite, southern Black Mountains, AZ. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Wood, E., \*Scheland, C., Miller, C.F., Claiborne, L., \*Foley, M. and Cribb, W., 2016. Explosive silicic volcanism preceding the Peach Spring Tuff supereruption, Part 1: Geochemical comparison and tentative correlation of fall deposits in the southern Black Mountains, Kingman area, and adjacent Colorado Plateau, AZ. Geol. Soc. America Abstracts with Program Vol 48, No. 7.

\*Liu, J., Morgan, D.J., Lowery, L.L., Padilla, A.J., Edwards, K.L., Putkonen, J., Bibby, T. and Cribb, J.W., 2015. Zircon geochemistry of granitic rocks from Ong Valley and Moraine Canyon in the Central Transantarctic Mountains, Antarctica. 2015. American Geophysical Union Abstracts with Programs.

\*Regula, A., Ferguson, C.A., \*Hess, Z, Miller, C.F., Claiborne, L.L, McDowell, S.M., Cribb, W., Flood, T.P., and Covey, K. 2015. Tuff of Bonelli House, Part 1: Petrologic characterization in type area at Kingman, regional correlation and constraints on extent. Geol. Soc. America Abstracts with Programs Vol 47, No. 7.

Claiborne, L.L., Miller, C.F., Lang, N.P., Ferguson, C.A., Varga, R.J., McDowell, S.M., Cribb, J.W. and Covey, A.K. 2015. An ignimbrite sandwich: understanding the evolution of the Peach Spring Tuff supereruption system through petrologic examination of preceding and postdating explosive eruptions – an NSF-REU study. Geol. Soc. America Abstracts with Programs Vol 47, No. 7.

\*Scheland, C.L., Perry, S.E., Miller, C.F., Claiborne, L.L., Cribb, J.W., Varga, R.J., and Carley, T.L. 2015. Investigating the extent of the early Miocene Cook Canyon tuff, a major pre-Peach Spring tuff ignimbrite, SW USA, using geochemistry and petrography. Geol. Soc. America Abstracts with Programs Vol 47, No. 7.

\*Hess, Z., \*Regula, A.J., Miller, C.F., Claiborne, L.L., McDowell, S.M., Cribb, W., and Covey, A.K. 2015. Miocene tuff of Bonelli House, NW Arizona: petrochemical constraints on magmatic processes and comparison to underlying Peach Spring tuff. Geol. Soc. America Abstracts with Programs Vol 47, No. 7.

\*Beard, E., Miller, C.F., Cribb, J.W., Lang, N.P., McCosby, J.B., and Ferguson, C.A. 2015. Subaqueous tuffs in the early Miocene volcanic sequence, Black Mountains, AZ, and Sacramento Mountains, CA. Geol. Soc. America Abstracts with Programs Vol 47, No. 7.

\*Winslow, H.B., \*Barry, E.E., Miller, C.F., Claiborne, L.L., and Cribb, J.W. 2015. Petrography and geochemistry of intracaldera ignimbrite matrix and tuff blocks: implications for eruption of Peach Spring tuff and caldera collapse. Geol. Soc. America Abstracts with Programs Vol 47, No. 7.

Claiborne, Lily L, McDowell, Susan M, Miller, Calvin F., Lang, N.P., Ferguson, Charles A., Cribb, J. Warner and Covey Aaron K., 2014. Prelude to a supervolcano: REU investigations in the Miocene volcanic field of the southern Black Mountains, Arizona. Geol. Soc. of America Abstracts with Programs Vol 46, No. 6.

\*Flansburg, Megan, Miller, Calvin F., McDowell, Susan M., Cribb, J. Warner and Bailey, Christopher, 2014. Priming for a supereruption: the hot pre-Peach Spring tuff lava flows and Peach Spring Tuff mafic enclaves, Black Mountains, Arizona. Geol. Soc. of America Abstracts with Programs Vol 46, No. 6.

\*Pratt, Ricky Daniel, Claiborne, Lily L., Miller, Calvin F., Ferguson, Charles A., Cribb, J. Warner and Szramek, Lindsay A., 2014. Investigation of a pre-supereruption ignimbrite: petrology of the Miocene Cook Canyon tuff, Black Mountains, Arizona. Geol. Soc. of America Abstracts with Programs Vol 46, No. 6.

\*Rentz, Shannon P., \*Rice, Stacey A., Cribb, J. Warner, Claiborne, Lily L., and Miller, Calvin F., 2014. Understanding pre-supereruption magmatic processes: multiple varieties of enclaves in pre-Peach Spring tuff trachytic lavas. Geol. Soc. of America Abstracts with Programs Vol 46, No. 6.

\*Lee, Jacob W., Williams, Scott H., \*Flansburg, Megan, Beckans, Holland, Miller, Calvin F., Lang, N.P., and Cribb, J. Warner, 2014. Implications of eruptive, erosive and depositional processes prior to a supereruption in the southern Black Mountains. Geol. Soc. of America Abstracts with Programs Vol 46, No. 6.

\*Rice, Stacey A., Claiborne, Lily L., Rentz, Shannon P. and Cribb, J. Warner, 2014. Voluminous intermediate, effusive magmatism in the Black Mountains, AZ, preceding the Peach Spring supereruption, and evaluation of its potential relationship to the supervolcano magma chamber.

\*Padilla, A., Miller, C., Gualda, G, Colombini, L, \*Kelly, E and Cribb, W., 2010. Death throes of a silicic system: final re-activation of a granitic crystal mush and transition to andesitic volcanism, Highland Range, southern Nevada. Geological Society of America Abstracts with Programs Vol 42, No. 5.

\*Kelly, E., Miller, C., Gualda, G., Colombini, L, \*Padilla, A. and Cribb, W., 2010. Multi-component magma mingling revealed in a rhyolite-dacite-andesite coulee, southern Highland Range (southern Nevada). Geological Society of America Abstracts with Programs Vol 42, No. 5.

\*Pickering, J., \*Tonish, J., \*Cares, J., and Cribb, W., 2010. Optimization of x-ray fluorescence spectrometry for environmental analysis of arsenic at low concentrations in sediment and soil material. Journal of the Tennessee Academy of Sciences, 85, 1.

\*Jones, M, \*Wylie, M., \*Pickering, J., Crombie, S and Cribb, W., 2010. Geochemical investigation of potential toxic metals releases from TVA coal ash surface impoundments into nearby river waters and sediments. Journal of the Tennessee Academy of Sciences, 85, 1.

\*Wylie, M., \*Pickering, J., Jones, M., Crombie, S., \*Shannon, C., and Cribb, W., 2009. Geochemical investigation of potential toxic metal releases from TVA coal ash surface impoundments into nearby river waters and sediments. Geological Society of America Abstracts with Programs Vol 41, No. 7.

\*Mayfield, A., \*Anderson, B. and Cribb, W., 2009. Hazardous metals in Tennessee Copper Basin stream sediments: sources, concentrations and distributions. Geological Society of America Abstracts with Programs Vol 41, No.1

\*Pickering, J., \*Tonish, J., \*Cares, J. and Cribb, W., 2009. Optimization of x-ray fluorescence spectrometry for environmental analysis of arsenic at low concentrations in sediment and soil materials. Geological Society of America Abstracts with Programs Vol 41, No. 1.

\*\*Weinman, BA., Goodbred, SL., Savage, K., Zheng, Y., Radloff, K., Singhvi, A., Charlet, L., Berg, M., Eiche, E., Cribb, W., and van Geen., A., 2008. The co-evolution of Asian aquifers and arsenic: how understanding sedimentary history can help predict patterns of arsenic heterogeneity. Oral presentation. Session H71. Arsenic and Other Metals as Contaminants in Hydrologic Systems at AGU's Fall 2008 meeting, San Francisco.

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