

# Newsletter



*Renovation in Lecture Hall Blackburn Room 320 has finally completed. If you haven't returned to Blackburn or haven't visited us in a while, we invite you back to see our facilities. Always improving!*

## Department of Earth and Environmental Sciences

### Greetings from the Chair

Greetings!

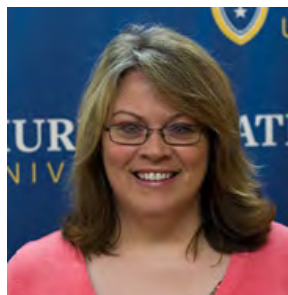
Hello, everyone. It's hard to believe that a year has passed since our last Newsletter. This marks the conclusion of our first year as Earth and Environmental Sciences at Murray State University. We have been busy! Our faculty have 7 active grants and submitted an additional 4 external grants, contributed to 11 peer-reviewed publications and 4 reports, and over 20 presentations at external conferences. Our students have actively participated in experiential learning on multiple venues, including 16 presentations during Fall Scholars Weeks, and 18 posters in the Sigma Xi Poster Competition in the Spring. Several students have also presented at regional and national/international conferences and received grants for their work. I thank you for your continued support and keep in touch! Hope you will enjoy reading this issue and please consider contributing to our next newsletter. - Robin Zhang

### EES Welcomes New Faculty and Staff



Professor Christine Witkowski joins Earth and Environmental Sciences this Fall as an Instructor. Christine came to us from Middlesex Community College in Middletown, CT, where she has been a Professor and Program Director of Environmental Science. She also previously served as the Park Geologist for the Dinosaur State

Park & Museum in Rocky Hill, CT, and Lecturer in the University of Connecticut, Eastern Connecticut University, and Manchester Community College in Connecticut. She earned her BS and MS degrees from UConn. Welcome, Christine!



Ms. Tracie Russo joins Earth and Environmental Sciences as our Administrative Assistant. Tracie was with the Office of Admissions at Murray State University. She holds a BS degree in Elementary Education

from Eastern Illinois University and has previous administrative experience with the University of Southern Indiana and Mid-Continent University. Welcome, Tracie!

## Faculty Spotlight: Dr. Marcie Venter



When most fourth-graders were sketching images of flowers, rockets, and pets, Marcie was drawing the Great Sphinx of Giza. Museum visits, frequent hikes in the woods of western Pennsylvania's Allegheny Mountains (where she regularly stumbled upon abandoned homesteads), a vivid imagination, and love for mysteries fostered this interest and were probably equally responsible for Marcie's early determination of becoming an archaeologist. Following high school graduation, Marcie enrolled at the University of Pittsburgh because of their large and dynamic department and proximity to the Carnegie Museum of Natural History, where she volunteered.

At Pitt, she completed her BA (1995), then she obtained her MA (2001) and PhD (2008) at the

University of Kentucky, all in Anthropological Archaeology. Her research interests include studying the interactions between groups living along geographical and cultural boundaries by way of their archaeological signatures. She currently mentors several undergraduate students in her research lab - most recently Sarah Bowman, Matt Meyer, Lacy Risner, Kevin Wann, and Nolan Whitt. Marcie directs the NSF-funded Matacanela Archaeological Project, situated in Veracruz, Mexico, as well as the Spanish Oristán Archaeological Project, in Jamaica. Students have been investigating and presenting on topics as diverse as Spanish colonial sugar mill organization, evidence for Aztec imperial frontier expansion, Olmec social network participation, community structure, the effects of climate change on ancient maize cultivation and cuisine, and more.

## Dr. and Mrs. Weber Establish the Neil and Joan Weber Endowed Scholarship



*L-R: Robin Zhang, Chair of Earth and Environmental Sciences; Joan and Neil Weber; Claire Fuller, Dean of the Jones College of Science, Engineering and Technology*

Dr. Neil Weber had a very successful career of 28 years at Murray State University, including being the first Director of the Mid-America Remote Sensing Center, the Chair of the Department of Geoscience and the Dean of the College of Science, Engineering and Technology, before his retirement in 2007. Joan's career includes 26 years as a certified interdisciplinary early childhood education teacher, elementary school teacher and director at North Elementary School, Calloway County Preschool, and adjunct instructor at Murray State University. The Neil and Joan Weber Endowed Scholarship will benefit incoming full-time freshmen pursuing a degree in the Department of Earth

and Environmental Sciences. We are truly grateful for the generosity and dedication of Dr. and Mrs. Weber.



## Faculty Recognized for Excellence in Research and Teaching



Two faculty members in the Department of Earth and Environmental Sciences were recipients of awards bestowed upon faculty at Murray State University for the 2018-2019 Academic Year. Dr. Michelle Casey was a recipient of the 2019 Board of Regents Award for Teaching Excellence and Dr. Basil El Masri was the recipient of the Jesse D. Jones College of Science, Engineering and Technology 2019 Outstanding Research Award. Dr. Casey is a paleontologist who taught a variety of geology courses include dinosaurs. Dr. El Masri studies terrestrial ecosystem functions using remote sensing, numerical modeling and field investigations, which contribute to our understanding of ecosystem function and

environmental change that is critical to global climate change and sustainability. Congratulations to Dr. Casey and Dr. El Masri!

## Undergraduate and Graduate Student Awards



(L-R: Austin Johnnessee, Lance Stewart, Alex Cline, and Ben Ferguson)

### 2018 - 2019 Outstanding Seniors and Graduate Students

Outstanding Senior in Environmental Geology: Alex Cline

Outstanding Senior in Geographic Information Science: Tanner Dutton and Austin Johnnessee

Outstanding Graduate Student in Teaching: Lance Stewart

Outstanding Graduate Student in Research: Ben Ferguson

### 2019 - 2020 Scholarship Recipients

A B Waters Scholarship: Dante Rivera

Clyde Reed-Jim Smith Scholarship: Cole Fletcher, Kevin Wann, Marie White Jesse

D. and Deborah C. Jones Scholarship: Amber Crawford

John E. and Ann N. Wesler Scholarship: Sarah Bowman, Cole Fletcher, Kevin

Wann Matthai-Panzera Scholarship: Sydney Abbott, Spencer Garrett

## Graduate Student Receives National Geographic Grant for Research in East Africa

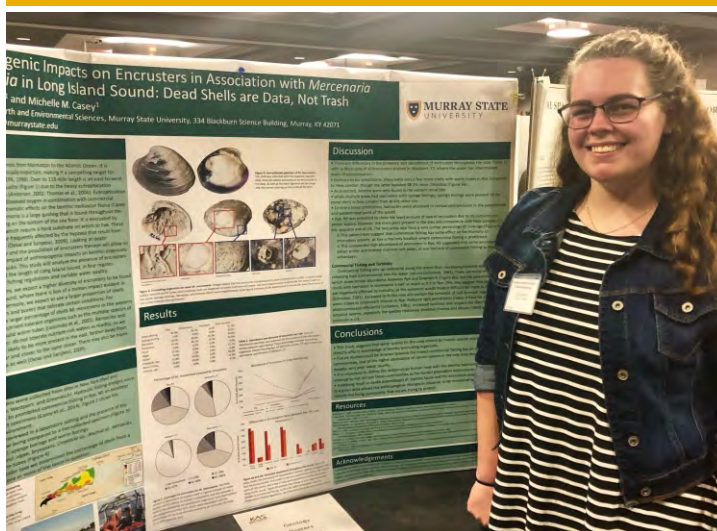


Kevin Takashita-Bynum, a first year graduate student in EES and the Watershed Studies Institute, received a \$10,000 grant from the National Geographic Society. As a result, Kevin, along with EES senior Marie White and advisor Dr. Gary Stinchcomb, traveled to the Cradle of Mankind in Ethiopia for month-long expedition in Jan-Feb 2019 to find answers to the question: "What were the environmental and climatic conditions like on land that caused our ancestors to disperse out of Africa?"

*Kevin Takashita-Bynum (second left), Marie White (fourth left), and Dr. Gary Stinchcomb (first right) with collaborators in Ethiopia.*

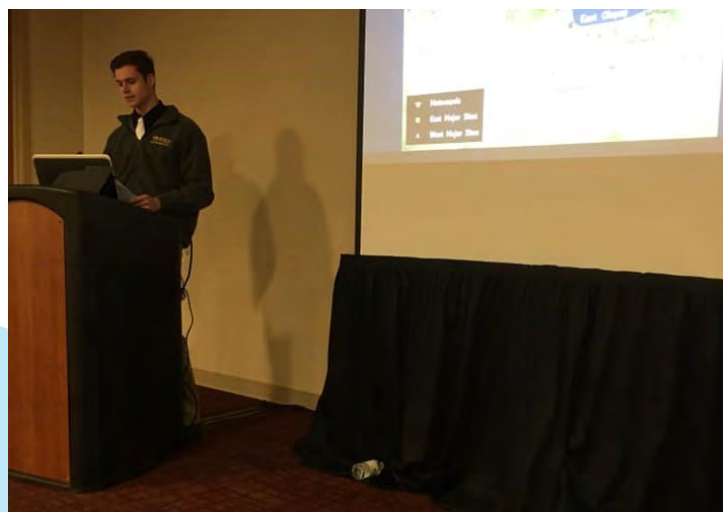
Read more about their exciting research at <https://openexplorer.nationalgeographic.com/expedition/sedsoilhuman>

## Students Present Work at Regional and National Conferences



Students have shared their research at regional and national/international conferences near and far. Graduate Students Ben Ferguson, Lance Stewart, Kevin Takashita-Bynum presented at the Geological Society of America (GSA) meeting. Senior Marie White (left) has presented at the meetings of Southeastern GSA and the Kentucky Academy of Science (KAS), along with Senior Megan Paule. Undergraduate students Kevin Wann and Lacy Risner presented at the Annual meeting of the Society for American Archaeology (SAA). Kevin Wann (below) and Matthew Meyer presented at Midwest Conference on Mesoamerican Archaeology and Ethnohistory.

In addition, over a dozen students presented at Murray State University's Fall and Spring Scholars Week each time. Nolan Whitt and Javus Yandal captured the Outstanding Undergraduate Poster and Outstanding Graduate Poster Award of the 2019 Sigma Xi Poster Competition. Way to go, our rising stars and thank you to all faculty mentors!





## Archaeology Field School in Jamaica



Six archaeology students, led by professors Dr. Marcie Venter and Dr. Chris Begley (Transylvania University), studied abroad in Jamaica this summer in search of evidence of the 1519 Spanish settlement of Oristan. Oristan, the second Spanish town founded on the island of Jamaica, was eventually renamed Bluefields after Britain seized it in the 1650s. A major landmark in the area is Fort Oristano, where locals have observed cannons, cannonballs and remaining fortifications over the years. The fort is perched at the edge of a cliff over Bluefields Bay, where it likely guarded the Spanish-claimed territory through the British colonial era. The group has successfully found evidence for the British use of the fortification, with students discovering lead musket balls, buckles, ceramics, smoking pipes, and more.

## Summer 2019 Internships



Amber Crawford takes a water sample from the Tennessee River.

Several students interned this summer to get their feet wet. Among them, Senior Amber Crawford has been an Intern for the US Geological Survey's Murray Field Office and Matthew Schwartz ('BS 19) has interned with Syngenta, an international agriculture company. Amber travels to USGS hydrological stations in western Kentucky, takes water samples and measures PH, temperature, conductivity, and the turbidity. Matthew flies drones over agriculture fields, generating maps of vegetation health and using remote sensing to efficiently analyze the health/growth stages of each individual field.



Matthew Schwartz flies a drone.



## Update From Alumni: Kyra Williams, BS'08 and MS'10, Geospatial Professional, Washington, D.C.



In 2008, I received my BS in Geosciences and was also awarded the Outstanding Senior in GIS Award, the first African American to receive a bachelor degree in Geosciences at Murray State University. I continued my education at Murray State earning my MS in Geosciences, with focus in Remote Sensing. My professional career with Environmental Systems Research Institute (Esri) began February 2012 as a Product and Licensing representative in Redlands, CA. In August 2014, I relocated to Washington, D.C. to join Esri's National Government Intelligence Team. Here, I had the opportunity to become a founding member and committee leader of the Esri Young Professional Network (YPN), a career highlight. My time with Esri YPN allowed me to travel nationwide to sponsored conferences where I hosted training workshops and networking events. I have also held professional associations' memberships

with United States Geospatial Intelligence Foundation (USGIF), Intelligence National Security Alliance (INSA) and Armed Forces Communications and Electronics Association (AFCEA) giving me leadership experience that plays an important role in advancing my career. Currently I work as a Geospatial professional for the federal government in Washington, D.C.



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## Alumni Update: Michael Prymula, BS'14, Geographer, Bureau of Ocean Energy Management, New Orleans, Louisiana



I decided to return to college as a 40-year-old and I had no idea what to expect, let alone know if I would even survive! Three years later (2014), I graduated Magna Cum Laude with a BS in Geosciences with an emphasis in Geographic Information Science. Immediately after graduating, I went to work full time for the Pennyryle Area Development District in Hopkinsville, KY. Within the year, I had accepted a cartographer position with the U.S. Army Corps of Engineers (USACE) in Galveston, TX, as a participant in the Recent Graduate Program. The program exposed me to all facets of USACE's mission to include navigation, environmental protection, civil engineering, real estate and emergency management. It was awesome living and

working where most folks go to vacation, but all good things must come to an end. In 2017, I moved to New Orleans after accepting a geographer position with the Bureau of Ocean Energy Management, under the Department of the Interior. In my nearly three years here, I have had the privilege to provide GIS support to four offshore oil and gas lease sales, create a variety of map and data packages to the offices my section supports to include archeology, environment, lease and plans and the regional director's office to name a few. My wife Amy and I recently purchased a home in Kenner, LA and we share it with our crazy, smart, beautiful three-year-old daughter Charlotte and our boxer lab mix Roscoe.



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## Update from retired faculty - Dr. Peter Whaley



Dr. and Mrs. Whaley celebrate his 82nd birthday on a Merry-Go-Around in Ocean City, MD.

Beryl and I left Murray in 2007 to return to the Delmarva Peninsula where I grew up. The commute from Salisbury MD to our cottage in Fenwick Island is much shorter than it was from Murray. Janet's family lives three houses down from us in Salisbury, thus we see a lot of our three youngest grandkids. I present talks on fossils, earthquakes and volcanoes for their science classes. This past year I made arrangements for some fossil crab specimens found on the Assateague Island National Seashore to be sent to the Calvert Cliffs Museum at Solomons Island MD. Our other two daughters and their family usually spend a week with us at the beach in late June or early July. We

get back to Murray every so often after visiting two of our older grandkids who work in Nashville TN. We celebrated my 82nd birthday in June and Beryl's will be in Sept. with a ride on the Merry go Round in Ocean City and swimming with part of the Whaley pod. We had a visit from John and Joan Mylroie in late July. (Dr. Mylroie was a Murray State geology faculty in the 1980s before he moved to Mississippi State.) He is still doing cave research all over the world even though he has retired. One of the best things about retirement is that you can give up mornings which means no early classes.

## Giving and Gifting

*If you would like to donate to the Department of Earth and Environmental Sciences, we have a number of scholarships to select from, including the Wesler Scholarship, the Matthai-Panzer Scholarship, the Reed-Smith Scholarship, the Alice and George Kipphut Sr. Scholarship and the recently formed Neil and Joan Weber Endowed Scholarship. Gifts to the Department of Earth and Environmental Sciences encourage student success in a variety of ways, by providing grants and scholarships, funding travel, or by purchasing equipment upgrades. Gifts of any size are greatly appreciated and always needed!*

*Checks should be sent to the Office of Development, Heritage Hall, Murray, KY 42071-3441. Please specify a fund in the memo field. Donations can be made over the phone by calling 1-877-282-0033 or 270-809-3001. Visit [murraystate.edu/giving](http://murraystate.edu/giving) to make an online donation. Thank you for your support!*

## Invitation to Share Experiences or Research

*The Department of Earth and Environmental Sciences is always on the lookout for alumni willing to speak about their employment experiences or research. Our students greatly value the experience and guidance from our alumni! If you are in the area and would like to present on a subject or employment opportunities, please contact us. Email our administrative assistant, Ms. Tracie Russo, [trusso@murraystate.edu](mailto:trusso@murraystate.edu), or call 270-809-2591 to schedule.*