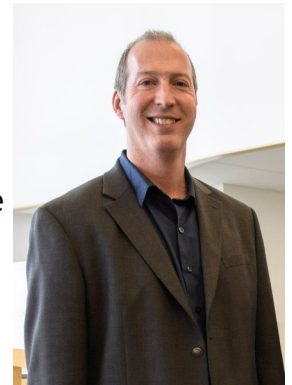


FROM THE DIRECTOR'S DESK

Welcome to the second edition of the Environmental Sciences PhD Program Newsletter. Our students and faculty have been busy working to understand how our natural environment is structured, the impacts of stressors upon it, and to devise technologies that may improve it. We have reached a milestone of sorts this year with our 30th, and then 31st graduate of the program and continue to produce scientists with a wide range of career options ahead of them. I am pleased to share news of Phil Lavretsky, our third alumnus to earn a tenure track faculty position, awards and honors of our current and former students, and to introduce five new students who joined us in the past year. Renewed attention and concern for the environment is critically important at this point and we appreciate your support of a program whose goal it is to produce graduates with the critical thinking, analytical, and communication skills needed to address current and emerging environmental issues. As always, please keep us updated with any news you may have as well as changes of address, email addresses and other ways of contacting you. Enjoy!



Don Cipollini
Director
ES PhD Program

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***Congratulations to Libby Roberson on receiving the
Graduate Student Excellence Award!!***

2016/2017 NEW STUDENTS

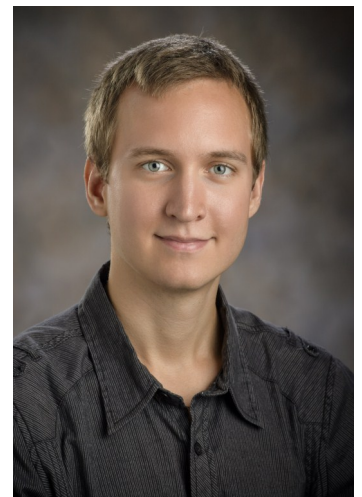
SAFIA JANJUA became a part of a prestigious organization as a research officer in a molecular biology lab in 2010 after completion of her Masters degree from UAAR Pakistan. The Bioresource Research Centre (BRC) is privately funded non-governmental organization in Pakistan working in different fields of biological sciences especially in wildlife conservation. In BRC she has been involved in different conservation genetics project on important wildlife species of Pakistan like Asiatic black bears, musk deer, snow leopards, common leopards, grey langur, etc. During her five years of affiliation, Safia published 13 research papers focusing conservation genetics. In 2014 she became the co-editor of "Journal of Bioresource Management- JBM" a research journal started by BRC in collaboration with WSU. Since joining us in Fall 2016, Safia has already won Sabin snow leopard grant for her PhD for studying the genetics of snow leopards of Pakistan, worth 20K. She hopes to have a learning experience at WSU that will allow her to return to her country with new skills and broader horizons to effectively participate in conservation efforts going on in her home country.

Advised by Tom Rooney



DAVID PETERMAN is from Pataskala, Ohio and transferred from OSU to Wright State in 2012. Here, he has completed his BS in Earth and Environmental Sciences, and his MS in Geophysics. His research interests lie in the paleobiology of fossil cephalopods; specifically, the evolution and functional morphology of septal walls in ammonite shells. He is using fractal analysis to quantify the degree of complexity in these patterns to better understand their purpose. He has recently presented at AGU and has submitted a manuscript to the *Journal of Paleontology* regarding his research this semester.

Advised by Chris Barton



ROBIN RICHARDSON-COY grew up in southwest Ohio near Cincinnati. She earned two associates degrees (Civil and Environmental Engineering) from Cincinnati State and then worked for 16 years in an environmental consulting firm contracted by US EPA. For the first 6 years her focus was bioremediation of petroleum and creosote contaminated soils. For the next 10 years her focus was on drinking water quality/ safety with 3 years focus on biofilm- disinfectant interactions and 7 years focus on water system vulnerabilities and early detection systems to monitor for potential terrorism threats. She received a bachelors in Environmental Health Science in 2013 and a Masters in Biology in 2016, both from WSU. Her masters focus was on feeding selectivity of a cichlid fish in Lake Tanganyika and her current research interest is how anthropogenic activity affects algae in freshwater ecosystems. Robin is active in local pet rescue efforts and is a member of the EMT.

Advised by Yvonne Vadeboncoeur

ANGELA BERTAGNI grew up in a suburb of Philadelphia. She attended Penn State main campus for 4 years and completed a BS in Geoscience, with a minor in Italian. While at Penn State she worked in a mineralogy lab and completed research on pH-mediated transformations of the mineral birnessite. Her general research interests focus on studying environmentally relevant minerals using a variety of instruments and techniques. Her current research focuses on studying the growth of barite when the mineral interacts with specific electrolyte solutions. This process is observed and analyzed using a hydrothermal atomic force microscope. Outside of the lab, Angela enjoys photography, ice skating, and rock climbing.

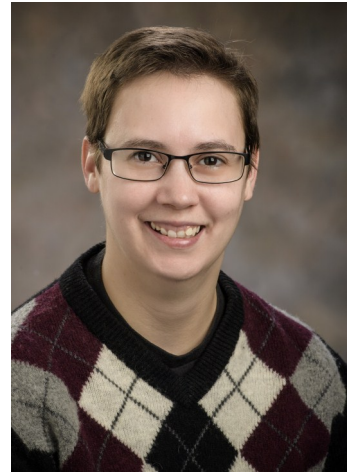
Advised by Steve Higgins



2016/2017 NEW STUDENTS

MICHAELA MITCHELL grew up in Fort Thomas, KY. After high school, she first studied biology at Northern Kentucky University. Deciding she was not ready for college, she joined the U.S. Navy and served for six years. After completing her service in the Navy, Michaela decided to pursue a culinary degree, and it was in culinary school that she realized science was her true passion, specifically, geology and biology, which led her to gravitate toward the field of paleontology/paleobiology. She returned to NKU to earn a Bachelor's degree in both geology and statistics, and entered the Earth and Environmental Sciences Master's program at Wright State University with Dr. Chuck Ciampaglio as her adviser. The focus of her thesis research was convergent evolution in tooth morphology of filter feeding sharks, which provided insight into how filter feeding sharks developed their filter feeding adaptations and how the teeth of distantly related filter feeding sharks have been evolutionarily modified as a result of these adaptations. A possible current research direction combines paleontology and neontology using molecular data to gain insight into how rays have transitioned from oceanic to freshwater environments. Michaela is very happy to be a part of the Environmental Sciences PhD program at Wright State University and excited to continue her dissertation research.

Advised by Charles Ciampaglio



PROGRAM HIGHLIGHTS

- Leon Katona awarded Biology award for Research Excellence (BARE) grant from Biological Sciences Department
- Angela Clayton received a \$2000 grant from the Lake Campus Faculty research symposium
- Safia Janjua received the \$25,000 Sabin Snow Leopard grant for her PhD project
- Two new faculty members joined the program: Megan Rua (Bio) and Oleg Paliy (BMB)
- We had three defenses in the calendar year. In the 8 or so years since we produced our first graduate, we have now graduated 31 students.

FIND OUT HOW CAN YOU SUPPORT THE ES PhD PROGRAM by clicking [HERE](#):

DR. MARCO TEDESCO DELIVERS THE 8TH ANNUAL WAYNE CARMICHAEL LECTURE IN ENVIRONMENTAL SCIENCES

Dr. Marco Tedesco of Columbia University discussed how recent changes in albedo, surface melting and snow compaction have interacted to amplify surface melting of Greenland through positive feedback mechanisms. He also discussed how changes in the atmospheric circulation over the Arctic have driven spatial and temporal distribution of melting and snowfall and how they play a key role in the partitioning of surface and ice dynamic losses. Lastly, Dr. Tedesco discussed how a connection between the atmospheric conditions over the Arctic and the jet stream, which offers a potential way to connect changes in the Arctic with those occurring in the mid-latitudes. This aspect is crucial for increasing understanding of how the different Earth System components interact and for improving estimates of the contribution of future sea level rise from the Greenland ice sheet.



ALUMNI NOTES

- Shawn Devlin, '11 was recognized by the Association for the Sciences of Limnology and Oceanography with a Raymond L. Lindeman Award for an outstanding peer reviewed paper in the Aquatic Sciences
- Rick Salisbury, '14, gained a research scientist position in the Molecular Bioeffects branch at Wright Patterson Air Force Base in 2016. He is also co-owner and president of Complete Therapy Care, Inc.
- Jacquelyn Bracco, '15 was recently nominated for a Kavli Foundation Emerging Leader in Chemistry Lecture through the American Chemical Society
- Chad Rigsby, '16 started a post-doc at the University of Rhode Island
- Seth Brittle, '16 graduate, continued a research position at Air Force Institute of Technology that funded him during his last semester at Wright State
- Tony Kim, '16, a branch leader at Air Force Research Laboratory, continued in a research position at WPAFB upon Graduation

Send us your submissions!

PHIL LAVRETSKY '14 STARTS POSITION AT UNIVERSITY OF TEXAS-EL PASO



Since obtaining my PhD from Wright State in 2014, I worked as a post-doctoral fellow at the University of Miami-Florida and the Smithsonian, as well as serving as adjunct faculty at Miami University of Ohio. This past fall I was fortunate to start as an Assistant Professor at the University of Texas at El Paso which entailed a move to Texas for myself and family. This first year flew by in a busy whirlwind both professionally and personally. Along with my offer came my own population and evolutionary genetics laboratory which I spent the year building, along with developing three new courses. I already have a PhD student in my lab and am bringing on a second in the fall. Through my teaching I also recruited several undergraduate students who are moving forward on several research objectives, incorporating both field and molecular aspect. As for my personal life, this past year entailed creating a new home as well as welcoming our second child. We are all enjoying the diversity offered in El Paso, and have found it to be a mecca of "transplants" of professionals from all over the United States and the world. We are also enjoying the surrounding areas of New Mexico and Colorado where we get to hike, fish, ski, and all around enjoy the outdoors. As skeptical as we were about moving to Texas. I have to say it was a great decision both personally and professionally. - Phil Lavretsky



**ENVIRONMENTAL
SCIENCES**
PhD PROGRAM

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