



Environmental Science Graduate Program

Spring 2018 Newsletter

Good day to all of you!

This spring semester has flown by! We have many students graduating this spring and summer who we will miss dearly. Almost every one of them have already found employment and for that we are thankful!

Our Professional Science Master's Degree has received re-accreditation through the Commission on Affiliation of PSM Programs. A big thanks to all that helped us through that process.

This spring we sponsored and hosted the 26th Annual Oklahoma Clean Lakes and Watershed Conference at the Wes Watkins Center. We had a record number of over 240 attendees with many students and professors from multiple universities presenting their water resources related research. It was a great success and thanks to all who helped organize and attend this year's conference.

While we have many graduating this semester, our incoming fall class looks to be a good one. Good luck to our students during their finals week.




Scott Stoodley, Director



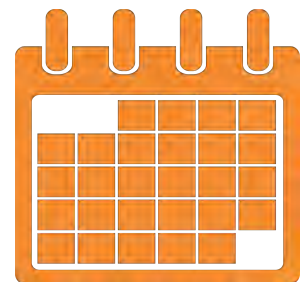
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Dates to Remember



April 27

*Results of Thesis/Dissertation
Defense Forms due*

May 4

*Thesis/Dissertation Signed
Approval Page due*

May 11

Spring Commencement

June 8

*Admission to Doctoral
Candidacy due for Fall*

New Additions

Jason Aamodt, J.D.



Aamodt joined OSU-Tulsa in fall 2017 and teaches for ESGP as an adjunct professor. He is a practicing attorney with 20 years of experience of working with both Indian Tribes and individuals on cases involving environmental and natural resource issues. Aamodt is a published writer and researcher and has taught a variety of classes including Environmental Law, Corporate & Sustainable Responsibility, and Water Law. He received his Bachelor's in Chemistry and Environmental Science from the State University of New York and his Juris Doctorate from the University of Tulsa College of Law. He previously worked as the Assistant Dean for Online Legal Education and currently teaches International Environmental Law and Natural Resource Law at the University of Tulsa College of Law. When he is not working, Aamodt enjoys developing home brewing, fishing, hunting, and hiking. Read his full profile at <https://spears.okstate.edu/profiles/?id=730>

Student Spotlight

Meet Lexi Freeman. Lexi is conducting field surveys of the American burying beetle (*Nicrophorus americanus*) at Camp Gruber Training Center located in northeastern Oklahoma to determine if *N. americanus* utilize the same habitat throughout the season. Within the past century, the American burying beetle (ABB) disappeared from roughly 90%



of its historic range. As a result, the U.S. Fish and Wildlife Service listed the species as federally endangered in 1989. As a carrion beetle, ABB has the important ecological role of scavenging and recycling decaying organic matter. Although there are many proposed causes for the decline in ABB populations, the most widely accepted is that the population declined as a result and alterations in habitat and changes in carrion availability. By conducting field surveys of the American burying beetle in different areas of Camp Gruber, Lexi's research will provide a better understanding of how the species utilizes a patchy environment. The results will aid conservation of this endangered species and assist in recovery plans. Lexi earned her Bachelors of Science in Zoology at Oklahoma State University in 2016. Currently, she is pursuing a Master's degree in Environmental Science while conducting research through the Department of Entomology and Plant Pathology under Dr. Wyatt Hoback. (continued page 3)

Go checkout the ESGP's new LinkedIn page:

www.linkedin.com/showcase/osu-environmental-science-graduate-program/

New Title



Dr. Kenneth Ede is now the Director of Professional Science Master's in Environmental Management.



Welcome

We would like to welcome these new members to the ESGP Steering Committee:

Dr. Carla Garzón, representing the Soil Biology research group and Associate Professor in the Department of Entomology and Plant Pathology.

Dr. Nicole Colston, post-doctoral fellow with the School of Teaching, Learning & Educational Sciences.

Student Spotlight, cont.

Lexi is a member of the Citizen Potawatomi Nation and hopes to return to her tribe, or another sovereign nation, to assist in environmental issues. The ESGP works closely with the Center for Sovereign Nations, which made the program especially appealing in this regard. She says, "Ultimately, my goal is to return to tribal nations and help with the implementation and regulation of environmentally friendly practices. As a Native American, I feel a close kinship to nature and respect and admire the work tribal nations do to preserve their natural surrounding and wildlife. I appreciate and believe in the Native American philosophy of seven generations: 'In every deliberation, we must consider the impact on the seventh generation.' I thoroughly enjoyed my experience at Oklahoma State University as an undergraduate and wished to continue as a Cowboy into the Environmental Science graduate program. Additionally, Dr. Stoodley has been an incredible instructor and resource throughout the entire graduate program experience."

Lexi's goal of assisting her tribe with environmental issues will soon be realized: she was recently offered a position as Environmental Specialist with the Citizen Potawatomi Nation.

New Course - Summer 2018

ENVR 5200: Hazardous Waste Operations & Emergency Response



The 40-Hour HAZWOPER course (CRN: 42951) follows the requirements of 29 CFR 1910.120 for general site workers engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards. Through a combination of classroom and hands-on training, participants learn proper use of PPE, hazard recognition, proper decontamination procedures and containment procedures. The course will take place at OSU-Tulsa and runs from July 9 to 13 (3 graduate-level credits).

Student Field Day

In March, ESGP Students participated in a field day at a farm in Union City, Oklahoma. They learned advanced survey techniques using high-tech equipment courtesy of restoration consultants from 5SSR. View drone video here: <https://tinyurl.com/yc69kp4n>



Graduates

2017 Summer & Fall



Ph.D.

Robert Scudder

Masters

Curt Dikes

Sally Kheirandish

Melissa Reed

Professional Science Masters

John Basler

Rebecca Brubaker

Rebecca Crandell

Hannah Hill

Garrett Hood

Shrav Rashatwar

Blake Redden

Shirley Stout

Marybeth Strothmann

Scott Vaughn

Alumni Hires



Keima Kamara

Assistant Extension Specialist, OSU Agricultural Economics Department

Brad Rogers

Water Quality Liaison, Oklahoma Conservation Commission

Lexi Freeman

Environmental Specialist, Citizen Potawatomi Nation

OCLWA Conference 2018

The ESGP helped sponsor the Oklahoma Clean Lakes & Watersheds Association (OCLWA) 27th annual conference. The conference took place April 4 and 5 at the Wes Watkins Center. The theme this year was “Managing Water Resources in Ever-Changing Times.” A number of ESGP alumni and students attended and made both oral and poster presentations, including Joseph Borsuah, Dr. Kevin Wagner, Curt Dikes, Jahna Hill, Abu Mansaray, Dr. Nicole Colston, and Dr. Brad Rogers, who also served as a moderator. Dr. Scott Stoodley also served as a moderator.



Student Talent



M.S. student Justina Aurea da Costa Belo won the OSU Student Union Activities Board Talent Show in March by singing 4 Non Blondes’ “What’s Up.”



Sheyda Nazari-Chamaki (seated third from right) won 3rd place in the poster competition.

Earth Day 2018



“End Plastic Pollution” is the theme for Earth Day Network’s 2018 campaign. The aim is to educate people about plastic pollution and how it affects us and our planet. Earth Day Network’s hope is to inspire us all to change our attitudes and behaviors in order to tackle this global environmental issue. In that spirit, please view these surprising facts about plastic pollution in our world: (continued page 5)

Aquatic Invader



Yellow floatingheart (*Nymphoides peltata*) is an aquatic invasive species that has become a problem at Lake Carl Blackwell. It forms dense mats across the water and overtakes other plant species in its path. These mats decrease the oxygen levels in the water and are not easily removed. This perennial is dispersed easily by water currents and is capable of producing large amounts of

seed. If not handled properly, the problem could hinder boating and fishing and harm OSU’s water supply, which is sourced solely from Lake Carl Blackwell. To prevent further spread of the infestation, surrounding bodies of water must be monitored closely and the floating plant should be treated with herbicide. Increasing the pondweed population could help it compete with the floating heart. While actions are being taken to manage and stop the spread of this invader, Lake Carl Blackwell’s water quality should be monitored often to ensure safe drinking water. For more information, contact our office.

Student Awards

Current and former ESGP students attended the 66th annual meeting of the Southwestern Branch of the Entomological Society of America in Albuquerque, New Mexico from March 25 to 29.



Elise Knowlton won 2nd place in the Master's Student Poster Competition. Her poster was titled "Coloring for insect conservation awareness."

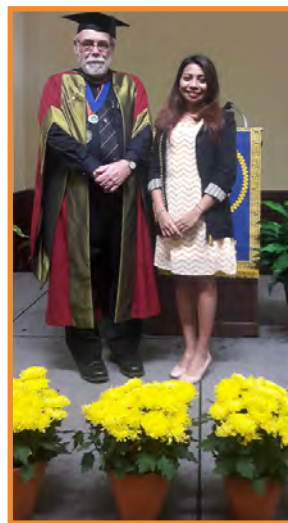


Lexi Freeman won 3rd place in the Master's student poster competition. Her poster was titled "Army maneuvers and American burying beetle conservation: A test of beetle habitat association on an active military base."



Melissa Reed was awarded 1st place in the Ph.D. student poster competition. Her poster was titled "Aquatic macroinvertebrates differ in time and space downstream of a Southeast Oklahoma reservoir."

In November, Justina Aurea Da Costa Belo was inducted into The Honor Society of Phi Kappa Phi, a collegiate honor society. Phi Kappa Phi is highly exclusive. A student must be nominated and approved by a chapter before even receiving an invitation. Some prominent members from recent history are former President Jimmy Carter, current Supreme Court Justice Ruth Bader Ginsburg, and author John Grisham.



Earth Day, cont.

In the United States, 88% of plastic bottles are not recycled. Often, bottles that are not recycled end up as litter in waterways and on beaches. Each summer, the Oklahoma Scenic River Commission gathers up 9 tons of trash from the Illinois River alone.

Plastics entangle wildlife and can release chemicals into the water when heated up in the sun. Over time, plastic bottles break up into smaller pieces. This makes it easier for wildlife to ingest. Plastic has been found in 50% of sea turtles surveyed. Researchers are finding microscopic plastic fibers and microbeads in shellfish, as well.

Plastic bottles also impact the environment indirectly.



In order to produce plastic bottles, 17.6 million barrels of oil are needed. This amount of oil could run over one million vehicles in the United States. It can take 7 times as much water to manufacture a single-use plastic water bottle as the bottle itself holds.

ESGP Swag

Need a reusable water bottle or shopping tote? Stop by our office and pick one up!

Special thanks to Kendra Jump, our student worker, for her hard work preparing the layout, design, and content of this newsletter. Kendra is a junior majoring in Strategic Communications.