



Oklahoma NSF EPSCoR Women in Science Conference

Tuesday, October 14, 2014 * Mabee Center * Tulsa, Ok



PANEL SESSION PARTICIPANTS' BIOS

WOMEN IN STEM: INSPIRE, EDUCATE, ENGAGE

Medicine

Engineering

Earth Science ★ Earthquake Research

University Research ^{and} Teaching

Crime Scene Investigation

Plant Biology

Economics

Zoology



Women in Science Conference Chairperson
TIFFANY NEILL, M.ED.
DIRECTOR OF SCIENCE EDUCATION
OKLAHOMA STATE DEPARTMENT OF EDUCATION

Tiffany Neill is the director of science education for the Oklahoma State Department of Education. Tiffany's high school biology teacher introduced her to the wonderful world of science through engaging lab activities, spirited discussions, and amazing field trips. As the president of her high school's environmental club, Tiffany even had an opportunity to meet and eat lunch with Jane Goodall! Tiffany's deep love of science and education persists to this day because of the efforts of her high school biology teacher and she loves nothing more than helping students find the same kind of passion.

Tiffany received her Bachelor of Science degree from Northeastern State University in 2002 and began teaching science and language arts courses at Attucks Alternative Academy in Vinita, Oklahoma and later taught Biology 1 and Environmental Science courses at Vinita High School. As a teacher Tiffany enjoyed helping students make discoveries in science and developed lab activities that allowed students to explore sustainable technologies and research in science such as the power of biogas digesters and vertical farms.

In 2007 Tiffany began working as a science specialist at the University of Oklahoma's K20 Center for Educational and Community Renewal. Her efforts at the K20 Center included: developing science curriculum, providing professional development, mentoring teachers, and developing an online professional learning community for teachers. In her time at the K20 Center she also had an opportunity to pilot an integrated Algebra 1/Biology 1 class at US Grant High School in Oklahoma City. Tiffany completed her master's degree in instructional leadership and academic curriculum from the University of Oklahoma in 2012. She is currently pursuing a doctorate degree at the University of Oklahoma with a focus on STEM education. In her current position as the state director of science education, Tiffany provides instructional support to science educators across the state so that they can provide exciting science experiences in their classrooms.





Women in Science Conference Panelist

KAY BACKUES, DVM, DIPLOMATE ACZM

**DIRECTOR OF ANIMAL HEALTH, SR. STAFF VETERINARIAN
TULSA ZOO**

Kay Backues began working at a veterinary clinic as a kennel assistant in high school. Besides animals, she enjoyed all aspects of science and math. So, when it came to college, a degree in biology at Kansas State University (KSU), was Kay's starting place. She went on to get her doctorate in veterinary medicine at KSU, as well.

It was while in college that Kay learned about the possibility of working as a veterinarian at a zoo. Though one of the smallest fields in veterinary medicine, she set her sights on that area of the veterinary field. As a vet student, Kay was active in the Exotic Animal Medicine Club and completed all of her clinical rotations at zoological parks. After graduation, she completed a one-year clinical internship in zoo medicine at the University of Tennessee, Knoxville, and then worked at private companion dog and cat veterinary practices in Florida and Tennessee. She continued to specialize in zoo medicine with a residency at the OKC Zoo. Afterwards she worked at the Milwaukee County Zoo, Audubon Zoo and San Diego Zoo before moving to Tulsa in 1998. Kay qualified for and took the Specialty Zoo Medicine boards in 2001, becoming the first veterinarian practicing in Oklahoma to become certified as a specialist in Zoo Medicine.

Kay is currently the Director of Animal Health at the Tulsa Zoo and works with a team of veterinary colleagues that include one associate veterinarian and two registered veterinary technicians. Kay has been very active in the American Association of Zoo Veterinarians and she served as their President in 2011. She has also been very active in the education of Oklahoma's next generation of veterinarians and veterinary technicians. She is an adjunct professor at both Tulsa Community College's Veterinary Technology Program and Oklahoma State University's Zoo Exotic Wildlife Medicine Service for over 13 years.



She is often asked what her favorite animal is, and the answer is always, "I like all of them for all different reasons." There are many great aspects of working at the zoo, but just a few include; working with a variety of animals and the unique problem solving required to treat them, the zoo staffs' shared passion for animals, and the opportunity to educate zoo guests about why animals and our earth should matter to everyone every day.



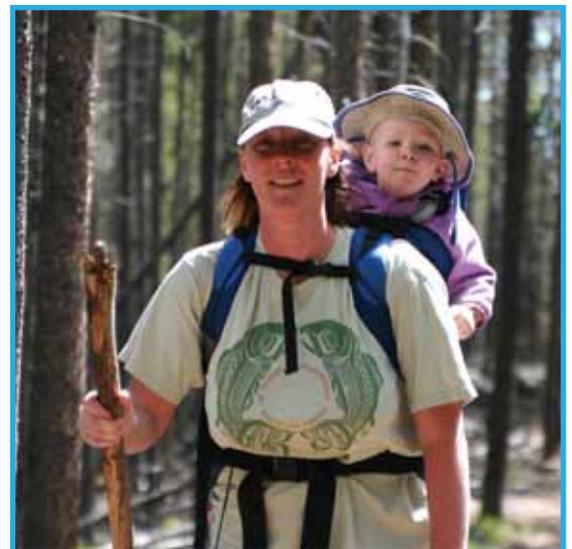
Women in Science Conference Panelist (AM SESSION)
TRACY BOYER, Ph.D.
ASSOCIATE PROFESSOR OF AGRICULTURAL ECONOMICS
OKLAHOMA STATE UNIVERSITY

Tracy Boyer grew up in Cincinnati, Ohio. In elementary school and high school she played basketball and went on backpacking, canoeing and caving trips. Her junior year of high school she was an exchange student in Ayvalik, Turkey through the American Field Service. These experiences sparked an interest in environmental issues at home and abroad.

Tracy earned an undergraduate degree in International Relations at Stanford in California studying the environment and international development, a Masters in Public Policy in Public Affairs at the University of Minnesota, and a Ph.D. in Applied Economics at the University of Minnesota.

Tracy has been a professor of environmental economics in the Agricultural Economics Department at Oklahoma State University for the past ten years. Her job includes teaching undergraduates and graduate students about environmental and natural resource economics. Her research involves valuing recreational uses of water in Oklahoma and how individuals and households can be persuaded to conserve and preserve Oklahoma's water and natural resources. She is currently a member of an Oklahoma EPSCoR climate variability research team that is funded by the National Science Foundation. Other projects have examined how protection of endangered species such as Prairie Chickens involves tradeoffs with wind power production. What she enjoys most about her career she is making a real difference in environmental public policy in Oklahoma.

Tracy spends a lot of time at home cooking funky ethnic food with her husband and daughter, Claire, and new Bullmastiff puppy, Phoebe. She enjoys kayaking in local Lake McMurtry and the Illinois River.





Women in Science Conference Panelist

AMIE GIBSON

RESEARCH SCIENTIST II

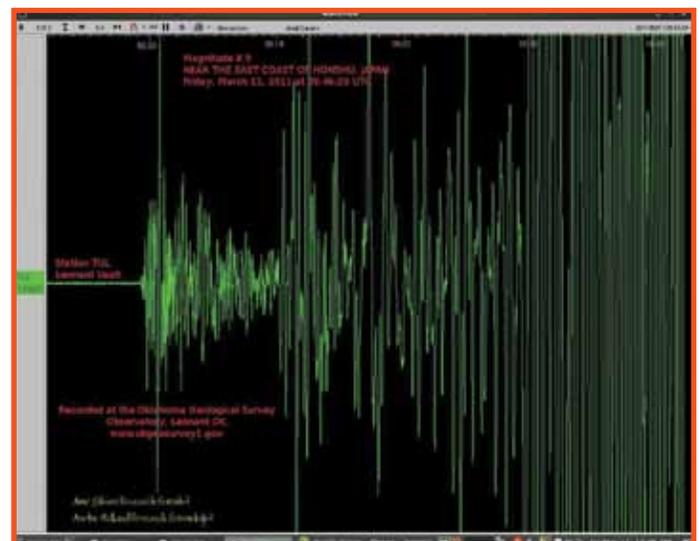
OKLAHOMA GEOLOGICAL SURVEY

Amie Gibson grew up in rural Liberty Mounds, Oklahoma. On summer vacations she and her family would go on float trips down the Illinois River in Tahlequah. It was on those float trips, and upon finding several arrowheads, that her interest in rocks and physical science originated.

Amie earned a Masters of Science in Information Technology (MSIT) degree from Florida Tech; she is currently pursuing her Ph.D. in computer science.

Amie is employed as a research scientist II with the Oklahoma Geological Survey and the University of Oklahoma. She has worked and studied at the Oklahoma Geological Survey Observatory, located on Leonard Mountain in South Tulsa County, for the past 16 years. Her job responsibilities include identifying and locating all earthquakes that occur in the State of Oklahoma and occasionally neighboring states as well. Her duties also include seismic installations, seismic station maintenance, and ensuring the continuous operation of Oklahoma's digital seismic network (24 hours a day/7 days a week/365 days a year). By integrating computer technology with geological tools (digitizers & seismometers) the methods of earthquake location and accuracy have been greatly enhanced in recent years.

Amie enjoys spending time with her daughter Sydney Brooke and occasionally catching a much needed nap. Along with fishing, golfing, pursuing her doctorate, and keeping all of Oklahoma informed about the latest earthquake data, she enjoys being a public servant to the State of Oklahoma.





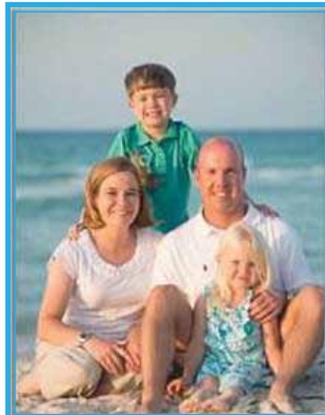
Women in Science Conference Panelist (AM SESSION)
CHERIE HUMPHRIES, LICENSED PROFESSIONAL ENGINEER
VICE PRESIDENT & GENERAL MANAGER
WILLIAMS, NGL SERVICES

Cherie Humphries graduated from Oklahoma State University with a bachelor's degree in civil engineering and a master's degree in civil engineering specializing in construction project management.

She began her career at MAPCO in the engineering development program and continued her career with Williams after the two companies merged. She completed her Master of Business Administration (MBA) degree at Oklahoma State University in 2000, while working at Williams.

Cherie has 19 years of experience in both technical and commercial roles for gas gathering and processing assets, as well as, natural gas liquids (NGL). She is currently the vice president and general manager of NGL Services for Williams. Cherie is responsible for overall operations, technical and commercial development of the Overland Pass Pipeline, Conway Underground NGL Storage and Conway NGL Fractionator. Cherie also is a licensed professional engineer.

Cherie has been married to her husband, Mark, for almost ten years, and they have two kids, Ryan (8) and Reese (6). She enjoys traveling with her family, watching her kids' sports events, golfing and OSU sports.





Women in Science Conference Panelist

PATRICIA IVEN, MHS, PA-C
PEDIATRIC PHYSICIAN ASSOCIATE
KIDS HEALTHCARE, TULSA

Tricia Iven is a pediatric physician associate in Tulsa, Oklahoma. As a child, she always wanted to be a doctor. She graduated from Booker T. Washington High School in Tulsa and went to Norman for her undergraduate studies at the University of Oklahoma. There she received her bachelor's degree in Life Sciences and Spanish.

While at OU, Tricia discovered the career of a physician associate and changed her path from pre-med to pre-PA. This career offered everything she wanted: practicing medicine, taking care of patients and families, and having a job that was challenging and allowed for problem-solving. After a lot of hard work and praying, she was accepted to the OU- Health Science Center PA program in Oklahoma City. Tricia recently graduated and received her PA degree. She now works as a pediatrician, taking care of children from birth to college-age.

In her personal life, Tricia is married to her husband, Andrew, whom she met while at OU. They have a miniature schnauzer named Ella and love to spend time with their seven nieces and nephews. Tricia loves to bake and her latest craft attempt is sewing quilts. She also loves to dance and go to Zumba classes. Tricia likes to volunteer when she can; she spent several days volunteering in Moore with tornado relief and now serves on a fellowship board in Tulsa that is working to improve healthcare in Tulsa.





Women in Science Conference Panelist (PM SESSION)
HEATHER McCARTHY, Ph.D.
RESEARCHER & ASSISTANT PROFESSOR OF PLANT BIOLOGY
UNIVERSITY OF OKLAHOMA

Dr. Heather McCarthy is an assistant professor of plant biology at the University of Oklahoma. She studies how trees, and the ecosystems they are part of, respond to changes in weather and environmental conditions (like droughts and storms) and to human activities like urbanization. She teaches several courses related to plant ecology and environmental science at OU, and mentors graduate and undergraduate student researchers. She is also a part of an Oklahoma EPSCoR climate variability research team that is funded by the National Science Foundation.

Heather grew up surrounded by the magnificent forests of the Pacific Northwest, which she credits with influencing her to become a forest ecologist. She graduated from Oregon State University with a B.S. degree in environmental science, and then went on to get a Ph.D. in ecology at Duke University. In her Ph.D. research, she studied how elevated atmospheric carbon dioxide (CO₂) associated with increased burning of fossil fuels changes forest growth. Finally, before coming to Oklahoma, Heather had a research position at the University of California in Irvine, where she worked to understand costs and benefits of urban trees, such as shading, offsetting pollution and beautification.

Heather enjoys spending time with her husband, Jack Friedman, a cultural anthropologist, and their retired greyhound, Franklin. 2013 was an exciting year for her, as she was able to travel to many interesting destinations, including Scotland and south China.





Women in Science Conference Panelist

FRANCIA THOMPSON

SPECIAL AGENT - CRIME SCENE UNIT

OKLAHOMA STATE BUREAU OF INVESTIGATION

Francia Thompson was born in Mexico and came to the United States at the age of 8. She grew up in a small southwest Oklahoma town where she graduated from high school. While in high school she joined the Oklahoma Army National Guard. After graduating from boot camp, Francia began college at the University of Oklahoma. Francia was involved in numerous college organizations, where she held many offices, including

president of the Hispanic American Student Association, chairperson of the Miss Hispanic OU Pageant, and was a founder of the Xi Beta Chapter of Sigma Lambda Gamma National Sorority, Inc. Francia graduated with a bachelors degree in sociology and criminology from the University of Oklahoma.

She began her career with the Oklahoma State Bureau of Investigation (OSBI) in 2005; she is currently a Special Agent working in the OSBI Crime Scene Unit. Francia also assists other law enforcement agencies throughout the state with Spanish interviews and document translations. During her career, Francia has worked to help solve hundreds of crimes in the state. She has worked with local, state and federal agencies to bring justice to victims and their families. She has received numerous awards from the OSBI including red feathers, team awards, and in 2010 she was named the Oklahoma State Bureau of Investigation Agent of the Year. Francia also teaches Crime Scene Investigation Techniques and Beginning Spanish for Law Enforcement courses for law enforcement agencies throughout the state. She also does presentations for students across Oklahoma.

Francia loves spending time with her family, which includes her husband and two daughters. In her spare time she likes to be with her family, playing games, watching movies, visiting the zoo, and visiting new places. She also likes to bake, eat, and plan events and parties.





Women in Science Conference Panelist (PM SESSION)

AMY WRIGHT

**MANAGER OF ENGINEERING & CONSTRUCTION
WILLIAMS, NGL & PETCHEM SERVICES**

Amy Wright graduated from the University of Oklahoma with a bachelor's degree in mechanical engineering in 1988. She began her career with Mobil Oil as a field engineer in south central Oklahoma doing process and project engineering in a gas plant. She joined MAPCO as a project manager in 1994 and then moved into the commercial side of the business as a senior business development representative in 1995 after completing her Master of Business Administration (MBA) at Oklahoma City University. She continued in that capacity at Williams after MAPCO and Williams merged in 1998. In 1999, the opportunity arose to move back to the technical side as a leader of engineering & construction; she has held various technical leadership positions since. Amy has just over 25 years of experience in technical, commercial and leadership roles for natural gas, natural gas liquids and olefins businesses spanning both pipelines, plants and underground storage. She is currently the manager of engineering & construction, where she is responsible for project development of major NGL & petrochemical projects.

Amy is a single mother of two boys: Turner, 18 and Paxton, 14. She currently spends her free time helping her older son navigate the college search process, watching her younger son play basketball, and endurance running. Amy just completed her ninth half marathon in two years.

