



UNIVERSITY OF CENTRAL OKLAHOMA

Center for Wildlife Forensics and Conservation Studies

CFACS Research Spotlight | 5 November 2017

Conservation Genetics

Allyson Fenwick, Department of Biology



Dr. Allyson Fenwick is an evolutionary biologist and herpetologist. She uses physical characters and DNA to recover evolutionary relationships of pitvipers and to answer interesting questions such as why there are so many pitvipers in South America. Manuscripts on the phylogeny are coming soon, and talks and posters on this material have been presented at conferences including Evolution, the Joint Meeting of Ichthyologists and Herpetologists, the Society for the Study of Amphibians and Reptiles, and the Southwest Association of Naturalists, as well as other local and regional meetings.

Allyson's major project at UCO is recovering the population genetics of Mediterranean geckos at different scales. At the smallest scale, the lab is interested in different buildings in one locations, and whether geckos on a building are breeding with those on other buildings. At the largest scale, students and Allyson are sampling from north to south across

the geckos' range in the central U.S. to look at adaptations to climate and changes from early invasions in the south to more recent invasions in central and northern Oklahoma. This work has been presented at local, regional, and international meetings, and students and Allyson

have won several UCO-based grants to investigate different aspects of this project. We collaborate with CFACS member Paul Stone and organizations such as the Oklahoma City Zoo.

A second invasion genetics project on fire ants, first noted and mapped on the UCO campus in fall of 2013, was done with CFACS member Paul

Stone with insight from CFACS member Chris Butler. Population genetics analysis of campus found evidence of two invasions on the UCO campus and multiple invasions with later population mixing at Lake Arcadia. The manuscript for this project, first authored by student Audrey Matheny, is currently in review at the American Midland Naturalist journal.



Come catch geckos with us! The lab currently does ecology surveys and sampling on UCO's campus and sampling at the University of Oklahoma. An email list announces sampling nights a few times a semester. UCO community members as well as friends and family are welcome – no experience needed.

For further information, additional research details and opportunities for future collaboration, contact Dr. Allyson Fenwick (afenwick@uco.edu).

