College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY

NEWSLETTER

SEPTEMBER 2022

TABLE OF CONTENTS

Mid-South Ruminant Nutrition Conference

Hempseed Meal Supplementation Research

Animal Science Graduate Student Orientation

Summer Internship

Natural Resource Ecology Research

Texans Hit the Beach for Conservation

Tarleton Meat Science Summer Travels









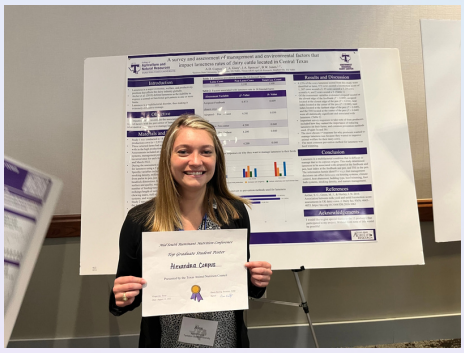
College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY
NEWSLETTER
SEPTEMBER 2022

Tarleton Students Presented at Mid-South Ruminant Nutrition Conference

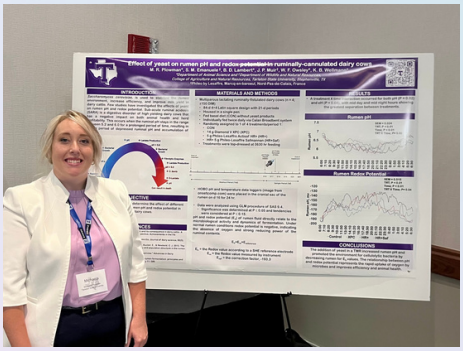


Four animal science graduate students, Michaela Plowman, Grace Canny, Alex Corpus, and Taylor Burrell, and one undergraduate student, Catherine Murphy, presented at the first annual research poster presentation at Mid-south Ruminant Nutrition Conference.

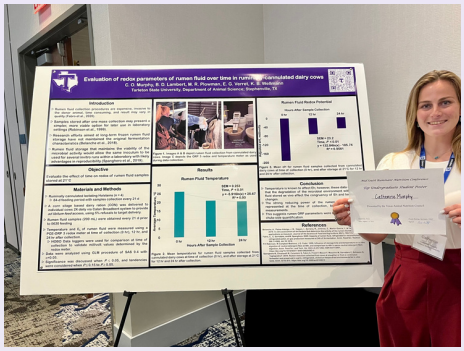
This annual conference is held in Grapevine, TX hosted by the Texas Animal Nutrition Council. The Texas Animal Nutrition Council, a non-profit educational and professional association, was founded in 1992, as a forum to disseminate up-to-date information on animal nutrition and management to its members. Alex Corpus placed first place in the graduate student division and Katherine Murphy placed first place in the undergraduate division!



Alex Corpus presented her research "A survey and assessment of management and environmental factors that impact lameness rates of dairy cattle located in Central Texas"."



Michaela Plowman presented her research "Effect of yeast on rumen pH and redox potential on ruminally-cannulated dairy cows."



Catherine Murphy presented her research "Evaluation of redox parameters of rumen fluid over time in ruminally-cannulated dairy cows."

College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY
NEWSLETTER
SEPTEMBER 2022

Hempseed Meal Supplementation Research



Several graduate students and faculty within COANR have been working together on an unprecedented research collaboration at the Tarleton Agriculture Center.

Graduate students Lane Smith, Ryon Springer, and Samantha McGovern have been researching the effects of hempseed meal supplementation on feedlot performance and the physiology of growing rough stock cattle. The study is being conducted with 40 head of growing bucking bulls, which has not been performed before at Tarleton.

The research collaboration includes Drs. Guay, Schwertner, and Wellmann. The goal is to provide the feed industry with valuable information pertinent to the pending approval of hemp-derived products for animal consumption.

Animal Science Graduate Student Orientation



The Graduate Faculty in the Animal Science Department hosted the first graduate student welcome/welcome back orientation. This annual orientation allows for first- and second-year students to be acquainted with graduate school, graduate faculty and fellow graduate students.

Thank you to Dr. Lambert and Dr. Owsley for welcoming the students to graduate school and thank you to the College of Graduate Studies and Office of Counseling for speaking with the students.

Thank you to all the graduate faculty for speaking with the students on various topics to help them succeed in graduate school. Lastly, thank you to Dr. Owsley for providing lunch for all attendees!

College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY
NEWSLETTER
SEPTEMBER 2022

Summer Internship: Texas Parks & Wildlife, Urban Wildlife Program

By: Nancy Montealvo



Over the summer, I interned for the Texas Parks and Wildlife Department under the Dallas Fort Worth Urban Wildlife Program. In the three months, I was in this position, I worked with Urban Wildlife Biologists Rachel Richter and Sam Kieshnick. Our office was located in Cedar Hill State Park but the field was all over the DFW metroplex. This internship focused on urban ecology and human dimensions and how humans can coexist with our native wildlife. I was involved in trail cam monitoring, directing citizen science programs, conducting biological surveys, assisting with education outreach, and more.

Every week, Sam and I would attend a BioBlitz or do our own biological survey at a city park to add data to iNaturalist. Whenever I was with Rachel, she and I did dove surveys and set up game cameras around Azle and Fort Worth to observe the different types of animals along a stretch of highway. I was also able to help with giving technical guidance to landowners with nuisance animals. There was an egret rookery in a wealthy McKinney neighborhood that had a lot of traction so I was able to learn about rookery management and how the Migratory Bird Treaty Act came into play.

The biggest project I did was presenting on how to manage your land for birds at a landowner workshop hosted by Texas Parks and Wildlife, Texas A&M AgriLife, and the North Texas Master Naturalists. Over seventy people were in attendance, and this was the first time I presented to a large audience. I talked about different habitat management techniques and ways people can attract certain types of birds to their backyard or a large ranch. Other things I touched on were how to conduct a point count survey, different types of shelter and food sources, and citizen science programs people could join.



The biggest project I did was presenting on how to manage your land for birds at a landowner workshop hosted by Texas Parks and Wildlife, Texas A&M AgriLife, and the North Texas Master Naturalists. Over seventy people were in attendance, and this was the first time I presented to a large audience. I talked about different habitat management techniques and ways people can attract certain types of birds to their backyard or a large ranch. Other things I touched on were how to conduct a point count survey, different types of shelter and food sources, and citizen science programs people could join.

Every day was something new and I was able to meet citizen scientists and naturalists who were extremely passionate about wildlife. My time during this internship has made me appreciate the diversity that can be found in even the smallest of parks and the importance of conserving these areas.

College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY
NEWSLETTER
SEPTEMBER 2022

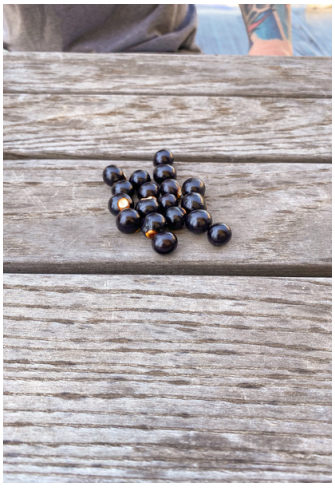
Natural Resource Ecology Students Take to the Hill Country State Parks for Research

August in Texas will always be hot, coupled with the ongoing drought the condition for conducting outdoor research is almost unbearable. However, these factors have not deterred Tarleton students from moving forward with research over the summer. On August 3, graduate student David Johnston along with Natural Resource Ecology undergraduates Bryan Dunn and Zach Bellows found themselves braving the heat and drought in Texas hill country at Guadalupe River State Park on the search for native Red Buckeyes. These students were seeking out Texas native Red Buckeyes (Aesculus pavia) to collect seeds to conduct research on increasing propagation success using different seed germination treatments. This research project is using four native buckeye species: Texas Buckeye (Aesculus glabra var arguta), Mexican Buckeye (Ungnadia speciosa), hill country endemic Texas Yellow Buckeye (Aesculus pavia var flavescens), and Red Buckeye.



This research is a joint effort, and precursor to a larger research effort, between Natural Resource Ecology (professor Dr. Darrel Murray, Graduate Research Assistant David M. Johnston and NRE student Bryan Dunn) and Horticulture (professor Dr. Mauricio Erazo-Barradas and undergraduate Horticulture students Adam Dailey and Emelie Roussel). This research seeks to increase the successful propagation of difficult-to-germinate native tree and shrub species of Texas using different sowing times and seed germination treatments to bolster biodiversity, conduct habitat management, and ecosystem restoration throughout Texas by returning successfully propagated species into ecosystems.









Seed sourcing for Red Buckeye and Texas Buckeye appreciatively made possible by Texas Parks and Wildlife Department (State Park Scientific Study Permit 67-22).

College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY
NEWSLETTER
SEPTEMBER 2022

Texans Hit the Beach for Conservation!



This summer Tarleton Wildlife and Natural Resource students had a unique opportunity to see firsthand and study ecosystems in our "collective" backyard. Dr. Darrel Murray and Dr. Hemanta Kafley offered students a study away opportunity to visit south Texas for hands-on knowledge and experiential learning experience of the ecosystems, conservation efforts, and contemporary issues affecting wildlife conservation in that region of Texas. The group stayed on South Padre Island and visited sites and met with conservation experts throughout the Brownsville region of south Texas.

The students visited numerous places such as Laguna Atascosa National Wildlife Refuge for discussions on endangered ocelot conservation, a Texan service day at Sea Turtle Inc. with accompanying discussions on conservation of Kemps Ridley Sea Turtles and its successes, a beach ecology walk from the University of Texas-Rio Grande Valley Coastal Studies Laboratory and discussions about confined animal conservation efforts and genetics at the Gladys Porter Zoo. Additionally, stops were made at the border wall, the mouth of the Rio Grande River, SpaceX, South Texas Ecotourism Center, and a unique and endangered Loma (clay dune) formation endemic to Africa, Australia, and this region of south Texas. These stops included discussions about the difficulties of conservation along the Texas-Mexico border due to it being an international border, socioeconomic impacts on conservation due to SpaceX and population growth in south Texas, and the positive and negative impacts of ecotourism.



The group of 17 students represented most concentrations offered by Wildlife and Natural Resources including Pre-veterinarian, Natural Resource Ecology, Soil Science, and Wildlife Science. The diversity of topics and destinations allowed for students to share the knowledge they had been presented in a classroom environment, and reinforced with field-based experiential learning.



Comments within their reflections included: "I gained valuable hands-on field experience and knowledge that I normally would not have learned in a classroom setting", and "More than just sitting in classes, this trip enhanced our firsthand knowledge of ecology, species conservation, environmental issues, social dynamics, and integrated regional conservation in South Texas." This emphasizes the value added to student education through experiential learning opportunities.

College of Agriculture and Natural Resources
TARLETON STATE UNIVERSITY
NEWSLETTER
SEPTEMBER 2022

Tarleton Meat Science Summer Travels

TSU Meat Science students have been busy this summer attending meat conferences and being recognized with scholarships as a result of their success in and out of the classroom. Dr. Cassens and Andrew Cano met with Tarleton alumni at the AMSA Reciprocal Meat Conference in Des Moines, Iowa this year to enhance their knowledge of the meat industry through networking events and research sessions.



The Southwest Meat Association Conference was held in Galveston, TX this year. Tarleton had 2 students recognized with SMA Foundation Scholarships.

Mr. Andrew Cano - Graduate Student in Animal Science
Mr. Shane Menz - Undergraduate Student in Agriculture Business

Additionally, the Texas Association of Meat Processors held its annual convention in College Station, TX. Dr. Cassens and undergraduate student Bailee Decker were fortunate to attend and participate in this year's event. Tarleton was recognized with 2 scholarship recipients at this year's conference.



Jim Henry Scholarship:

Mr. Jeffrey Harz - Undergraduate Student in Animal Science and Meat Lab Student Worker

Scholarship In Memory of Wayne Hall:

Mr. Andrew Cano - Graduate Student in Animal Science

Thank you to SMA and TAMP for the support they gave our students through their scholarships and industry connections!