TEXAS SOCIETY OF MAMMALOGISTS

PROGRAM, ABSTRACTS, AND NEWSLETTER

44th Annual Meeting

13-15 February 2026

#TSM2026

Texas Society of Mammalogists

Cover illustration: *Vampyrodes caraccioli*, *Artibeus lituratus*, & *Phylloderma stenops* by Krysta Demere.

Texas Society of Mammalogists
44th Annual Meeting
13-15 February 2026

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MENU 2026

Friday:
6:00 pm DINNER
Build your own burger, macaroni and cheese, fries, desert, and salad

Saturday:
7:00 am BREAKFAST
Breakfast tacos, hash browns, cinnamon rolls, assorted cereal, and fruit

9:35 am Break
Coffee, tea, water, scones, muffins, granola bars, fruit

Saturday:
12:00 pm LUNCH
Potato bar, corn salad, taco salad, salad bar, broccoli spears, cornbread, brownies, and ice cream

3:15 pm Break (in Packard Building)
Coffee, tea, water, cookies, trail mix, fruit

Saturday:
5:30 pm BANQUET DINNER
Chicken fried steak, mashed potatoes, cream gravy, green beans, salad bar, wheat dinner rolls, chocolate pie

Sunday:
7:30 am BREAKFAST
Pancakes, bacon, hash browns, blueberry muffins, English muffins, assorted cereals, and fruit

RULES FOR USE OF THE TEXAS TECH UNIVERSITY CENTER AT JUNCTION'S LLANO RIVER FIELD STATION

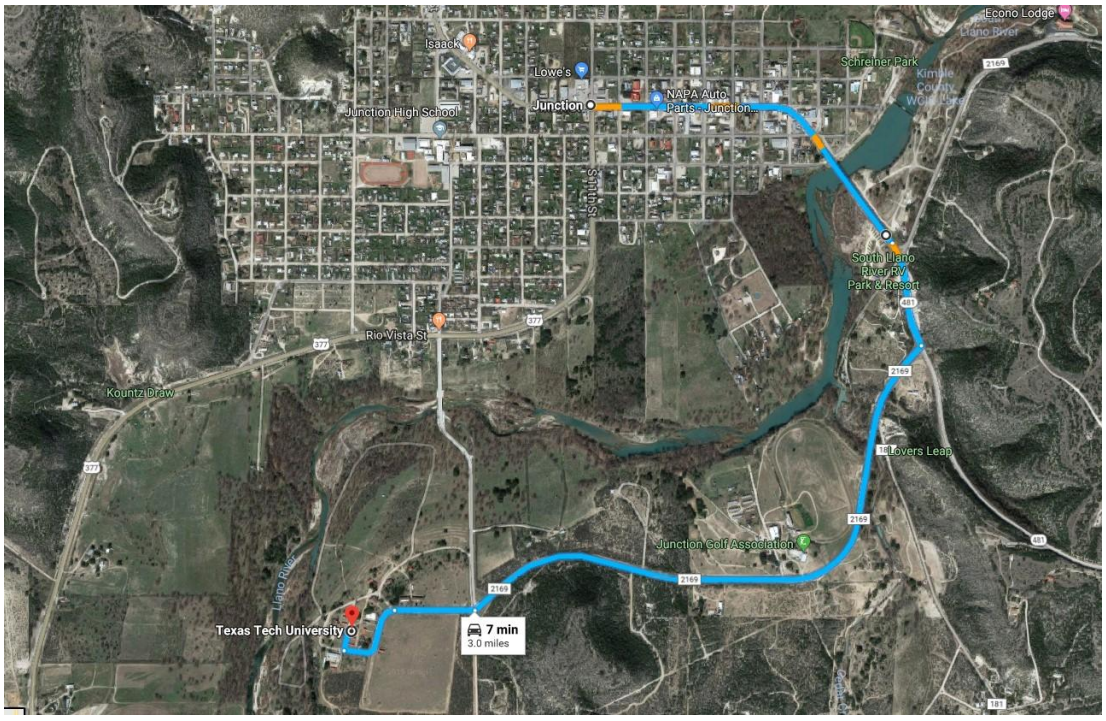
- Drugs and alcohol are strictly prohibited at the center*. Unauthorized use of either will result in immediate eviction with no refund. (*see exception below for TSM social hours)
- Do NOT drive on the grass. Stay on designated roads and out of unauthorized areas.
- Do NOT secure any items to the walls and/or doors without prior approval. This includes the use of tape, nails or screws.
- Do NOT remove or dismantle ANY furniture in the buildings, including beds and mattresses, clocks, other wall hangings or fixtures. DO NOT sit or stand on tables.
- Please remove all your event signs and/or posters before you depart.
- Pets, firearms, and camping are not allowed on campus.
- Fires are allowed ONLY with prior permission and ONLY in designated fire pit areas. The field station adheres to the Kimble County Burn Bans.
- Use of electric skillets, hot plates and other electrical cooking appliances is prohibited in all lodging areas. This also applies to electric heaters.
- Smoking is strictly prohibited inside **any** building.
- All plants and wildlife are protected at the field station and are not to be harvested or removed.
- Use of recreational vehicles is strictly prohibited on center.
- Do not prop open doors in ANY building

Any infractions, disregard, and/or negligent behavior resulting in the damage to the facilities, furniture, or equipment will be assessed a fee of no less than $1000.00. This includes outside areas as well as tampering with thermostats in locked boxes. This damage/tampering fee will to be added to the Society's final bill.

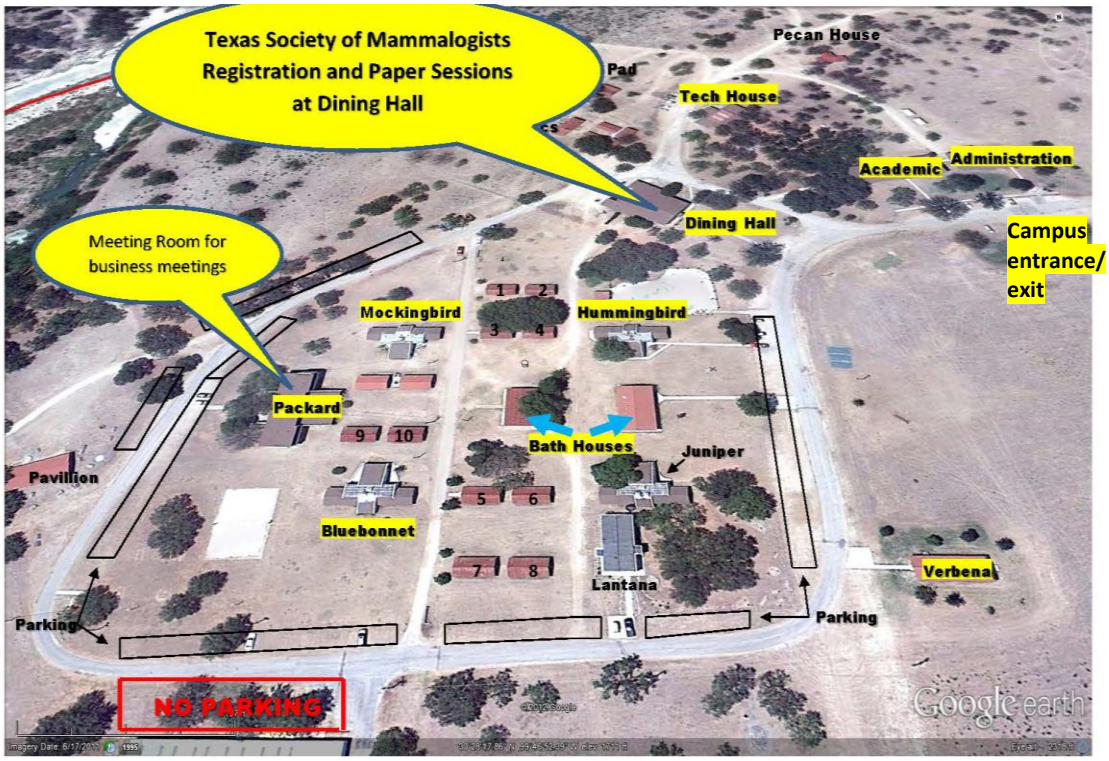
***Alcohol Rules for Texas Society of Mammalogists: Consumption of alcohol by persons over 21 years of age is permitted only in the Dining Hall from 7 pm to 12 midnight Friday and Saturday night. Attendees must show their ID at registration to receive a wrist band that will verify their legal age and two drink tickets. A licensed bartender will be present to distribute up to two alcoholic beverages per attendee wearing a wrist band. A Security Officer will be present on campus to monitor and respond to any illegal activities or safety concerns. Please follow the rules and behave yourselves so TSM can continue to meet at the Junction Center each year! Thank you!**

DIRECTIONS TO TTU LLANO RIVER FIELD STATION FROM JUNCTION

The bridge via the "back way" to campus has not been replaced. Please use the route shown below.



CAMPUS MAP



Note: There are two single-stall restrooms available in the Dining Hall. In the case of long lines, or the restrooms being out of order, the Bath House restrooms are available for use.

alht.Studio

Soctopus Store

Crazy Opossum Lady

Peppermint Narwhal

BottleShopEngraving

Feral Pony Shop

AallFormsofLife

Odd Craft Designs

Fineasslines

Davis Mountains Rock Shop

Jabebo Earrings

Phil Sudman

Joel Brant

Loren Ammerman

Robert Dowler

Cathy Early

Krysta Demere

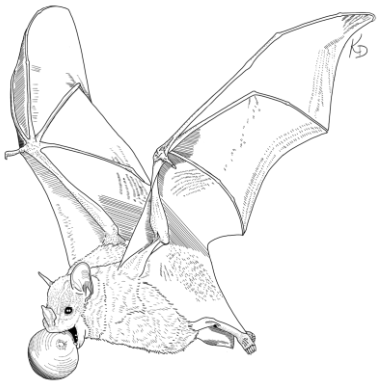
Rachael Connally

And Many More*

*Donor list as of 02/9/2026

THANK YOU FOR YOUR DONATION

The 7 student presentation awards offered by Texas Society of Mammalogists are made possible by the generous donations of the society's members and many external businesses to our annual live and silent auctions. The support of our donors ensures that we have the resources to recognize and reward current students and future professionals in the academic, state, and national wildlife fields for excellence in mammalian research.



2026 Program Schedule

Friday, 13 February

3:00–7:30 pm	Registration	Dining Hall
4:30–6:00 pm	Meeting of the Executive Committee	Packard Building
6:00 pm	Dinner (serving line open 6:00–6:30 pm)	Dining Hall
7:00 pm	Announcements/Welcome Address TSM President Iván Castro-Arellano	Dining Hall
7:30–9:30 pm	Poster Presentations	Dining Hall
9:30 pm	Meeting of the Student Honoraria Committee	TBD

Saturday, 14 February

7:00 am	Breakfast and Registration (serving line open 7:00–7:30 am)	Dining Hall
8:00 am	Introduction and Announcements TSM President Iván Castro-Arellano	Dining Hall

PAPER SESSION 1

(Presenters' names are underlined)

Moderator: Michelle Haynie, University of Central Oklahoma

Paper 1 is to be considered for the Packard Award.

8:15 Paper 1 – **BLUBBER METABOLITE PROFILES REVEAL ENVIRONMENTAL ADAPTATIONS IN NORTHERN GULF OF MEXICO DOLPHINS** Makayla Guinn, Dara N. Orbach, and Hussain Abdulla

Papers 2-9 are to be considered for the William B. Davis Award.

8:30 Paper 2 – **EIGHT YEARS OF SMALL MAMMAL MARK-RECAPTURE RESEARCH IN WESTERN OKLAHOMA: TRENDS AND HANTAVIRUS PRESENCE** Claire Wiley, Francisca M. Mendez-Harclerode, Gloria M. Caddell, Chad B. King, and Michelle L. Haynie

8:45 Paper 3 – **PRELIMINARY FINDINGS ON HABITAT PREFERENCES OF DAVIS MOUNTAIN COTTONTAILS (*S. HOLZNERII ROBUSTUS*) IN THE DAVIS MOUNTAIN RANGE** H. A Shapiro, C. Wzientek, D. Karelus, and A.M. Martin

9:00 Paper 4 – **BATS AND WATER: GUZZLER DESIGN INFLUENCES BAT ACTIVITY IN THE TRANS-PECOS OF TEXAS** Manuel Quispe-López, Bonny McKinney, and Richard D. Stevens

9:15 Paper 5 – **ENVIRONMENTAL DRIVERS OF MIGRATION AND ECTOPARASITE DYNAMICS IN MEXICAN FREE-TAILED BATS (*TADARIDA BRASILIENSIS*)** Kristin. E. Dyer, Meagan Allira, Bret M. Demory, Mackenzie G. Hightower, Jackson T. Wingert, Krystie A. Miner, Amanda M. Adams, Winifred F. Frick, Jeremy D. Ross, Kevin T. Castle, and Daniel J. Becker

9:30 **30 Minute Break**

PAPER SESSION 2

Moderator: Jenna Grimshaw, Tarleton State University

10:00 Paper 6 – **WHEN ROADS BECOME BARRIERS: BOBCAT (*LYNX RUFUS*) AND OCELOT (*LEOPARDUS PARDALIS*) MOVEMENT AND LANDSCAPE PERMEABILITY IN SOUTH TEXAS** Sean Kiernan, Simona Picardi, Emma Brookover, Elizabeth Grunwald, Terry Hanzak, Thomas Langschied, Daniel Scognamillo, Jack Towson, Thomas Yamashita, John Young, and Michael Tewes

10:15 Paper 7 – **WHY DID THE CAT CROSS THE ROAD? EXPLORING THE GENOMIC LINK UNDERLYING DECISION-MAKING BEHAVIOR IN WILD CATS** Jack Towson, John Young, Emma Brookover, Brian Davis, Jan Janečka, Lucas Spetic da Selva, and Michael Tewes

10:30 Paper 8 – **HISTORICAL AND CONTEMPORARY DISTRIBUTION OF *MEPHITIS MACROURA* IN TEXAS** J. Clint Perkins, Robert C. Dowler, and Richard D. Stevens

10:45 Paper 9 – **AN UPDATED R PACKAGE FOR ECOLOGICAL CYCLICAL DATA: AN APPLICATION EXAMPLE FOR CERVID ACTIVITY PATTERNS** Tatiana Velásquez-Roa, Maria A. Hurtado-Materón, Ángel L. Robles-Fernández, and Iván Castro-Arellano

Paper 10 is to be considered for the Rollin Baker Award.

11:00 Paper 10 – **COMMON DOLPHINS (*DELPHINUS DELPHIS*) INCREASE *S*WIMMING SPEED AS AN AVOIDANCE RESPONSE TO VESSEL APPROACHES** Soleil Delorge, Fadia Al Abbar, Lorenzo Fiori, and Dara N. Orbach

12:00 **Lunch** (serving line open 12:00–12:30 pm)

1:15 **Group Photo** in front of the Dining Hall – All members, please attend and please be on time! ☺

PAPER SESSION 3

Moderator: Marie Tipps, Texas A&M University – San Antonio

Papers 11-14 are to be considered for the Bobby Baker Award.

1:45 Paper 11 – **UNRAVELLING THE DIVERSITY OF NONVOLANT SMALL MAMMALS ALONG THE PURUS RIVER, CENTRAL BRAZILIAN AMAZONIA, THROUGH FIELD WORK AND DNA BARCODING** Aramide Oladiran, Camila Mayume, Joyce A. Voltolini, Maria Clara Ribeiro, Ana Lazar, Joyce R. Prado, Renato Gregorin, Ana Paula Carmignotto, Alexandre R. Percequillo, and Edson F. Abreu

2:00 Paper 12 – **TEST OF A NUCLEAR GENE MARKER TO DISTINGUISH BETWEEN MEMBERS OF THE *MYOTIS CALIFORNICUS / CILIOLABRUM / LEIBII* COMPLEX** Lela Faison, Halle Summers, and Loren K. Ammerman

2:15 Paper 13 – **POPULATION STRUCTURE OF BOWHEAD WHALES USING MTDNA SEQUENCES** Alexandra A.Hernandez, John W. Bickham, John Citta, Amy B. Baird

2:30 Paper 14 – **GENETIC CHARACTERIZATION OF PARASITIC NEMATODES (*CRASSICAUDA*) IN BOWHEAD AND BELUGA WHALES** Tamsin L. Ward, Raphaela Stimmelmayr, David Rotstein, and Amy B. Baird

Paper 15 is to be considered for the TSM Award.

2:45 Paper 15 – **IDENTIFICATION OF NUCLEAR MITOCHONDRIAL INSERTIONS (NUMTS) ACROSS THE POCKET GOPHER GENUS *GEOMYS*** Haider A. Khan and Russell S. Pfau

3:00 pm Meeting of the Student Honoraria Committee TBD

3:30 pm **Members Business Meeting** Packard Building
All members, including students, please attend!

5:30–9:00 pm **Annual Banquet and Auction** Dining Hall

5:30–6:30 Dinner (serving line open 5:30–6:00pm)

5:30 Silent Auction opens for bidding

6:30–7:00 Award Presentations

7:00–8:00 Guest Speaker Address:

Five Decades of Mammal Research: Dynamics of Biodiversity

Michael R. Willig
Board of Trustees Distinguished Professor Emeritus
Department of Ecology & Evolutionary Biology
University of Connecticut

8:00–9:00 Live Auction
Silent Auction ends 10 minutes after Live Auction

9:00–midnight Socializing and Dancing Dining Hall

Sunday, 15 February

7:30 am Breakfast (serving line open 7:30–8:00am) Dining Hall

Scan this QR code to download the oral & poster abstracts

Scan this QR code to download the 2026 TSM Newsletter

POSTERS AT-A-GLANCE

Competing for the Clyde Jones Undergraduate Award (Posters 1-2):

1 – GENETIC IDENTIFICATION OF *PEROMYSCUS* SPECIMENS FROM SMALL MAMMAL MARK-RECAPTURE STUDIES IN WESTERN OKLAHOMA
Kayli D. Newport

2 – GENETIC VARIATION AND PHYLOGEOGRAPHY OF *EUMOPS PEROTIS* (WESTERN MASTIFF BAT)
Daniela Childress

Competing for the Vernon Bailey Undergraduate Award (Posters 3-7):

3 – SEVEN YEARS OF CAMERA TRAPPING MAMMALS AT ABILENE STATE PARK, TAYLOR COUNTY, TEXAS
Lyndsey K. Klein

4 – MESOPREDATOR USE OF WILDLIFE CROSSINGS IN SOUTH TEXAS
Elena Gonzales

5 – A TEST OF RELATIVE ABUNDANCE OF GRAY FOX (*UROCYON CINEREOARGENTEUS*) AND COYOTES (*CANIS LATRANS*) IN URBAN VERSUS RURAL LANDSCAPES
Isabella Ortiz de Camargo

6 – HORMONES, HIGHWAYS, AND THE ROAD AHEAD: GENOMIC INSIGHTS INTO BEHAVIOR AND SURVIVAL OF SOUTH TEXAS WILD CATS
Denay Hernandez

7 – ASSESSING THE CORRELATION BETWEEN BOBCAT PRESENCE, PREY PRESENCE, AND SURROUNDING ENVIRONMENT IN SOUTH TEXAS
Emma McMillian

Competing for the Vernon Bailey Graduate Award (Posters 8-15):

8 – CAMERA TRAPPING IN RIPARIAN CORRIDORS WITHIN PEARL JACKSON CROSSTIMBERS PRESERVE (WIP)
Teague Fox

9 – EVALUATING BAT COMMUNITIES ACROSS THREE WEST TEXAS MOUNTAIN RANGES USING MOBILE ACOUSTIC SURVEYS
Kennedy Berry

10 – THE USE OF BRIDGES AS DAY-ROOSTS BY BAT SPECIES IN EAST TEXAS
Jayme E. Czap

11 – SPATIAL VARIATION OF AN INSECTIVOROUS BAT ASSEMBLAGE IN RESPONSE TO LANDSCAPE HETEROGENEITY AND PREY AVAILABILITY IN THE RURAL LANDSCAPE OF LIMA-PERU, PACIFIC COASTAL DESERT
Jorge Rivero

12 – IMPACTS OF CAPTIVITY ON BONE DENSITY AND LOCOMOTION IN MEXICAN GRAY WOLVES (*CANIS LUPUS BAILEYI*)
Scott C. Spencer

13 – MULTI-SPECIES ASSESSMENT OF WILDLIFE–VEHICLE COLLISIONS USING BOBCATS AND SYMPATRIC WILDLIFE TO INFORM OCELOT CONSERVATION IN SOUTH TEXAS
Rupesh Maharjan

14 – UNDERSTANDING DIEL ACTIVITY PATTERNS IN WILD BOAR (*SUS SCROFA*) INVASION SUCCESS: BEHAVIORAL PLASTICITY VERSUS CONSERVED TEMPORAL TRAITS
Namrata Bhandari

15 – CHARACTERIZATION OF *MYOCPLASMA* COMMUNITIES IN AOUDAD (*AMMOTRAGUS LERVIA*) POPULATIONS ACROSS TEXAS
Brendan Amman

Texas Society of Mammalogists
44th Annual Members Business Meeting
14 February 2026

AGENDA

1. Call to Order
2. Approval of the minutes of the 2025 Member's Business Meeting
3. Officer Reports
    a. Secretary-Treasurer, Cathy Early
    b. Permanent Secretary, Joel Brant
    c. Editor, John Hanson
4. Committee Reports
    a. Report of Honorary Membership Committee, Amy Baird
    b. Report of Financial Advisory Committee, Phil Sudman
    c. Report of the Student Honoraria Committee, Caleb Phillips
    d. Report of the Committee on Conservation, Michael Tewes
    e. Report of the *ad hoc* Informatics Committee, John Hanson
    f. Report of the *ad hoc* Committee on Human Diversity, Iván Castro-Arellano
    g. Report of the *ad hoc* Conduct Committee, Dana Lee
    h. Report of the *ad hoc* Auction Committee, Krysta Demere
5. Officer Elections
    a. President-Elect
    b. Secretary-Treasurer
6. Old Business
7. New Business
    a. Address Change for Bank Account
    b. Selection of site for 2027 Annual Meeting
        i. 12-14 February 2027
        ii. 11-13 February 2028
8. Closing Remarks of TSM President, Iván Castro-Arellano
9. Adjourn

Texas Society of Mammalogists
Treasurer's Report for 2025 Fiscal Year (Jan 1 – May 31)
Submitted by Cathy Early, Secretary-Treasurer

Income and expenses of TSM for the 2025 fiscal year are shown below. Note that this is the first annual cycle since TSM transitioned from calendar year to fiscal year, thus only the first 5 months of 2025 are included.

In January, our checking account was transferred from the Bank and Trust of San Angelo to Extraco Bank in Belton. Our investments are handled by Morgan Stanley. The value of the investment fund increased $6,835.69

Checking Account Balance as of 1 January 2025	$892.84
Investment Account (Morgan Stanley) balance 1 January 2025	$119,593.65
Total TSM assets as of 1 January 2025	**$120,486.49**
2025 Income	
2025 Annual Meeting income (registration, meals and lodging fees)	
Student Registration ($15, waived for presenters)	$315.00
Late Registration	$0.00
Non-Student Registration ($30)	$1,500.00
Late fees	$0.00
Meals ($40/$12 full plan/banquet only)	$3,596.00
Lodging & linens ($30/$45 study unit/suite, $30 discount for presenters)	$2,015.00
2025 Membership dues	$1,090.00
2025 Patron Memberships	$835.00
Other pre-paid donations	$314.00
Pre-paid T-shirts ($15 each, free for presenters)	$765.00
Auction Income	$8,000.00
Transfer from Morgan Stanley account	$5,000.00
Total income	**$23,430.00**
2025 Expenses	
2025 Annual Meeting Expenses to TTU Center	$14,189.00
Event Insurance – paid by private donor, about $400	$0.00
Keynote Speaker	$757.00
Entertainment	$750.00
Bartender – stipend	$300.00
Refreshments, Beverages, Kegs	$478.34
Office Supplies (new checks for bank account)	$98.60
Printing Name Tags	$0.00
Printing Programs – covered by UMHB Biology Department	$0.00
Student Awards	$3,700.00
T-shirts – 102 shirts ordered	$1,392.31
Stripes Fees	$48.94
Postage & Wire Transfer Fees	$0.00
Reimbursements	$280.00
Money Returned to Morgan Stanley Investment Account	$0.00
Total Expenses	**$22,443.06**
Checking Account Balance 31 May 2025	$3,275.40
Outstanding Check (eventually cashed in August 2025)	-$400.00
Investment Account (Morgan Stanley) Balance 31 May 2025	$116,602.70
Total TSM Assets as of 31 May 2025	**$119,478.10**

Texas Society of Mammalogists
Members' Business Meeting
15 February 2025

The meeting was called to order by President Dara Orbach at 3:15 pm. The minutes of the 2024 Members' Business Meeting were approved.

Officers' Reports

Secretary-Treasurer. Secretary-Treasurer Cathy Early began by thanking the work of past Secretary-Treasurers. Cathy announced that part of her role as Secretary-Treasurer was to examine the accounts and determine where we could save money. One of the changes she would like to see is to not print the entire Program & Newsletter next year. The abstracts and newsletter portion will be available online while the program and agendas would be printed out. If members wanted the abstracts and newsletter in a printed form, they will be able to purchase those separately. Cathy called up Tom Lee (immediate past Secretary-Treasurer) to review the Treasurer's Report for 2024. Tom began his report by noting that the 2024 meeting lost ~$2,500 (expenses over revenues), primarily due to the costs associated with the Junction Center. The good news is that our Morgan Stanley investment account made ~$5,000 over the course of the year (so the Society's finances were positive for the year). Tom mentioned that he was glad to see that some of the registration fees were increased for 2025 to help offset the meeting expenses. Instead of reading through the Secretary-Treasurer's report, Tom mentioned that the detailed report is available on page 33 of the program. A question was asked regarding the costs associated with the Junction Center. As seen on the report, the current costs were ~$15,000 and Tom mentioned that 4-years ago the costs were ~$10,000. A question regarding the increase in fees was asked. The increase in fees was only for members who were not presenting at the meeting (mostly non-student members). The motion to approve the 2024 Treasure's Report was moved and seconded. Motion passed.

Permanent Secretary. Permanent Secretary Joel Brant reported that his main role at the meetings was to keep the minutes and take photos for inclusion in the archives. The Permanent Secretary is also responsible for assembling the Program & Newsletter, as such all the many typos are his responsibility. Because he misidentified the mammal on the cover of the program, Joel was docked 5-points from the Mammal Challenge Joel was asked to report on who was registered for the meeting. As of this morning, there were 26 affiliate institutions, 37 professional faculty, 7 non-academic professionals, and 60 students including ~40 first-time attendees. Most of the first-time attendees have a ribbon on their name tags identifying them as first-time attendees. We have 4 states that are represented (New Mexico, Oklahoma, Oregon, and Texas) and 2 countries (Colombia and USA). We have ~110 registrants as of now. The motion to approve the 2025 Report of the Permanent Secretary was moved and seconded. Motion passed.

Editor. Newsletter Editor John Hanson reported that the editor's job is primarily to handle the newsletter and the website. John pointed out to the membership that the newsletter is intended to highlight the professional members of the Society so that folks can see the opportunities provided by these folks. John encouraged everybody to check the accuracy of their bio in the newsletter and to make sure to send an update when John calls for submissions to the newsletter next year. John is also responsible for the website and has expressed a desire to update the website. One of the items he'd like to add is a page for meeting photos. John asked for any other ideas to improve the website as well if anyone want to help with the website. President Orbach also praised the work John does with the website to make our registration process operate smoothly. The motion to approve the 2025 Report of the Editor was moved and seconded. Motion passed.

Reports of Committees

Phil Sudman, Chair of the Honorary Membership Committee, briefly described what Honorary Membership entailed and noted that his report would continue at the awards ceremony just before the banquet. Phil encouraged members who wish to nominate someone for Honorary Membership to contact any of the Executive Committee members.

Phil Sudman, Chair of the Financial Advisory Committee, reported that he meets regularly with the Secretary-Treasurer to monitor the investment account. The investment account began the year with $115,113.12 and ended the year with $119,593.65. As of 13 February 2025, the account was $123,249.25. Last year we netted (minus the funds withdrawn to support the meeting) ~$4,500. Phil commented that over the course of three decades, TSM has put in ~$67,000 into the investment account and the account currently sits at ~$123,000. His calculations suggest that our return on our investment is 81.6%. Thankfully the Society is doing well enough that we can continue to make withdrawals as needed to keep the meeting friendly for students. Phil encouraged the membership to donate when they register for next year in order to keep this meeting an affordable meeting. Patron membership is another way to donate to the society. Phil thanked everyone who contributed to the society and praised the student focus of TSM. The motion to approve the 2025 Report of the Financial Advisory Committee was moved and seconded. Motion passed.

Ivan Castro-Arellano, Chair of the Student Honoraria Committee, reported that the bulk of his report would occur during the awards ceremony immediately before the banquet speaker. Ivan thanked all the presenters for their posters or talks. Ivan thanked all the judges for volunteering to judge the various posters and talks. He encouraged folks to volunteer ahead of time to judge as that makes things a bit easier for this committee. The motion to approve the 2025 Report of the Student Honoraria Committee was moved and seconded. Motion passed.

Mike Tewes, Chair of the Conservation Committee, reported that Texas is a battleground state for White-Nose Syndrome (WNS). The big concern at TPWD is that several new species of *Myotis* have been infected in Central and West Texas and *Perimyotis subflavus* has been infected. These increases in susceptible species has caused concern at the state level. Loren Ammerman pointed out that all the bats mentioned from West Texas have tested positive for the fungus (*Pseudogymnoascus destructans*) but not WNS. On a positive note, recently ~80 *Ovis canadensis* were released into the Franklin Mountains, increasing the range of this species in Texas. Finally, trapping of *Puma concolor* continues to be a concern for TPWD. Recent proposed regulations ban canned hunts and require a 36-hour check for traps. TPWD is preparing a management plan for *Puma concolor* scheduled to take effect in 2026. Mike encouraged member to attend the American Society of Mammalogists at Purdue University this summer. He also encouraged members to attend the Texas Conservation Symposium in Georgetown, TX, every January. The motion to approve the 2025 Report of the Conservation Committee was moved and seconded. Motion passed.

John Hanson, Chair of the *ad hoc* Informatics Committee, referred everybody to his comments as Editor regarding the website. The *ad hoc* Informatics Committee primarily focuses on social media and website footprint of the Society. John encouraged anyone who wished to help with this committee to contact him.

Ivan Castro-Arellano, Chair of the *ad hoc* Human Diversity Committee, reported that this committee is currently focused on gathering data. Ivan encouraged everyone to click on the QR code projected (and displayed around the meeting) to complete the 2025 demographic survey. The committee has begun an effort to familiarize students with the various pathways to a career in mammalogy. This year Dara Orbach discussed the core experiences that led her to her current career at Texas A&M University – Corpus Christi. Ivan encouraged interested members to contact him about serving on this committee. Dara mentioned that as a result of the 2024 survey, the Society designated the Packard classroom as a

quiet space for those who needed one. Dara also encouraged folks to submit suggestions to the survey and that the Executive Committee would seriously consider ways to improve the Society. The motion to approve the 2025 Report of the *ad hoc* Human Diversity Committee was moved and seconded. Motion passed.

Dana Lee, Chair of the *ad hoc* Conduct Committee, reminded everybody that the Society has a Code of Conduct which can be found on the website. The society has appointed 3 Ombudspersons (Dana Lee, Russel Pfau, & Cody Thompson) who the membership can bring issues to and who will address conduct violations. Dana encouraged anyone who has questions regarding the Code of Conduct or would like to report a violation of the Code, please seek out the Ombudspersons. Dana reported that there were no conduct violations reported this year. The motion to approve the 2025 Report of the *ad hoc* Conduct Committee was moved and seconded. Motion passed.

Krysta Demere, Chair of the *ad hoc* Auction Committee, reviewed the auction report from 2023. The live auction raised $2,765. The silent auction generated $1,252. Several folks added monetary donations to bring the total generated by the auction to $4,554.71. On page 5 of the program is a list of folks who donated to this year's auction. Krysta thanked all those who helped facilitate the auction. Krysta encouraged anyone who wanted to take an active role in the committee to contact her. Krysta mentioned that it is sometimes difficult to keep track of who has won an auction item so this year she has added a sticker to everyone's name tag with a number. When you win an auction item, this number will be used to keep track of your items so Krysta and her helpers at the check-out table can keep track of your items. Krysta discussed the various types of payment available for the auction. Finally, Krysta asked students to help with moving tables and materials to the banquet site. The motion to approve the 2025 Report of the *ad hoc* Auction Committee was moved and seconded. Motion passed.

Election of Officers

President Orbach announced that the Executive Committee had nominated Caleb Phillips (Texas Tech University) and Marie Tipps (Texas A&M University – San Antonio) for the office of President-Elect. The floor was opened for additional nominations. No additional nominations were put forward. After a ballot election, Caleb Phillips was elected President-Elect for 2026.

President Orbach announced that the Executive Committee had re-nominated Joel Brant (McMurry University) for the office of Permanent Secretary. The floor was opened for additional nominations. No additional nominations were put forward. Joel was elected by acclimation.

New Business

It was moved and seconded to hold the 2026 TSM meeting at the TTU Center at Junction. There was discussion of the dates for next year. We have the option of choosing the1st or 2nd weekend of February. The Texas Wildlife Society generally meets on the 3rd weekend of February and the 4th weekend of February is generally when the Texas Academy of Sciences meets. The membership voted for the 2nd weekend in February. The 2026 meeting will be held February 13-15. The 2027 meeting will be held February 12-14. Motion passed.

President Orbach called on Krysta Demere and Cathy Early to discuss ideas to develop decals or other TSM related imagery for fund raising purposes. Specifically, they are asking for the Society's permission for them to explore and develop this imagery. Ideas include notepads, stickers, pens, decals, etc. A motion was made and seconded to allow Krysta to develop a proof-of-concept for these images that can then be offered next year. Motion passed.

President Dara Orbach praised the quality of the student presentations this year. She thanked all the students and faculty who presented their research as well as all the folks who participated in the logistics of the meeting. She encouraged everyone to return next year and to complete the 2025 Diversity Survey.

The Members' Business Meeting was recessed at 4:07 pm.

The Members' Business Meeting was reconvened at 6:30 pm.

Phil Sudman, Chair of the Honorary Membership Committee, continued his report from the Members Business Meeting. Phil began by noting that awardees are revealed in one year but are presented their awards at the next year's meeting. Phil continued by revealing the 2025 class of Honorary Members (Michael Willig, Michelle Haynie, & Joel Brant). Phil closed his comments by encouraging members to bring nominations for Honorary Membership to any member of the Executive Committee.

Jessica Light announced the winners of the Mammal Challenge. Emily Schmalzried of Texas Tech University won the Student category of the Mammal Challenge. Adam Ferguson of the Field Museum won the Non-Student category of the Mammal Challenge.

Ivan Castro-Arellano, Chair of the Student Honoraria Committee, announced the winners of the presentation awards. Each winner received a cash award ($500 for the Packard Award and $400 for all others) and was recognized by the society with applause. Ivan congratulated all the presenters for their presentations and encourage everyone to submit abstracts next year.

Oral presentation award winners were:
1. Robert L. Packard Award — Brian McElligott, Texas State University
2. TSM Award — Ashley E. Loehn, Angelo State University
3. William B. Davis Award — Daniel Benson, Texas A&M University
4. Rollin H. Baker Award — Scott C. Spenser, University of New Mexico
5. Bobby Baker Award — Solomon K. Meraz, Cameron University

Poster presentation award winners were:
1. Clyde Jones Award (graduate) — Alyssa Arguijo, Texas State University
2. Vernon Bailey Award (graduate) — Annaleigh Laine, Texas Tech University
3. Clyde Jones Award (undergraduate) — Ivette Sarabia-Cintron, Cameron University
4. Vernon Bailey Award (undergraduate) — Caleb Dale, McMurry University

The Members' Business Meeting was adjourned at 6:44 pm.

Respectfully submitted,
Joel G. Brant
Permanent Secretary

STUDENT AWARDS

These awards are made possible by the generous donations of the Society's members and by fundraising activities.

Robert L Packard Award – The Robert L. Packard Award is presented for the Best Overall oral presentation. Eligibility is open to any student who has not previously received this award. This award currently includes an honorarium of $500.

The Robert L. Packard Award was first awarded in 1985 for the best student presentation. In 1990, when the TSM Award was established, the Packard Award was designated for the best presentation in classical mammalogy. Since 1998, the Packard Award has been designated for the Best Overall oral presentation. The award was named in honor of Robert L. Packard (1928-1979), the founder of the Texas Society of Mammalogists.

TSM Award – The TSM Award is presented for the best oral presentation in mammalian molecular biology, evolution, and systematics by a graduate student. Eligibility is open to any graduate student who has not previously received this award. This award currently includes an honorarium of $400.

The TSM Award was established in 1990.

William B. Davis Award – The William B. Davis Award is presented for the best oral presentation in classical mammalogy at the organismal level by a graduate student. Eligibility is open to any graduate student who has not previously received this award. This award currently includes an honorarium of $400.

The William B. Davis Award was established in 1998 in honor of William B. Davis (1902-1995), a leading mammalogist in Texas and the first Head of the Department of Wildlife and Fisheries Sciences at Texas A&M University. Davis authored or co-authored five editions of *The Mammals of Texas* (1947, 1960, 1966, 1974, 1994).

Bobby Baker Award –The Bobby Baker Award is presented for the best oral presentation in mammalian molecular biology, evolution and systematics by an undergraduate student. Eligibility is open to any undergraduate student who has not previously received this award. This award currently includes an honorarium of $400.

The Bobby Baker Award was established in 2013 in honor of Bobby Baker (1986-2012), who was an active and award-winning undergraduate member of the Texas Society of Mammalogists.

Rollin H. Baker Award – The Rollin H. Baker Award is presented for the best oral presentation in classical mammalogy at the organismal level by an undergraduate student. Eligibility is open to any undergraduate student who has not previously received this award. This award currently includes an honorarium of $400.

The Rollin H. Baker Award was established in 2002 in honor of Rollin H. Baker (1916-2007), president of the Society in 1984-85 and an active member of TSM from 1984 until his death in 2007.

Clyde Jones Awards – The Clyde Jones Awards are presented for the best poster presentations by one graduate student and one undergraduate student in mammalian molecular biology, evolution, and systematics. Eligibility is open to any student who has not previously received the award at the respective academic level.

The initial Clyde Jones Award was established in 2004 in honor of Clyde Jones (1935-2015), Horn Professor of Biological Sciences at Texas Tech University. Jones was an active member of TSM since its inception in 1983 until his death in 2015, and was President of the Society in 1987-88.

Vernon Bailey Awards – The Vernon Bailey Awards are presented for the best poster presentations by one graduate student and one undergraduate student in classical mammalogy at the organismal level. Eligibility is open to any student who has not previously received the award at the respective academic level.

The initial Vernon Bailey Award was established in 2004 in honor of Vernon Bailey (1864-1942), Chief Field Naturalist and Senior Biologist for the Department of Agriculture's Bureau of Biological Survey (1897-1933). Bailey conducted the first and most complete biological survey of Texas, from 1889 to 1905.

TEXAS SOCIETY OF MAMMALOGISTS

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Robert L. Packard (D)
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Class of 1991
Howard McCarley (D)
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Carl Phillips
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Kent Rylander
David J. Schmidly
Stephanie Shelton
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Phil Sudman
Michael Tewes
Ron Van Den Bussche
Christopher Walker
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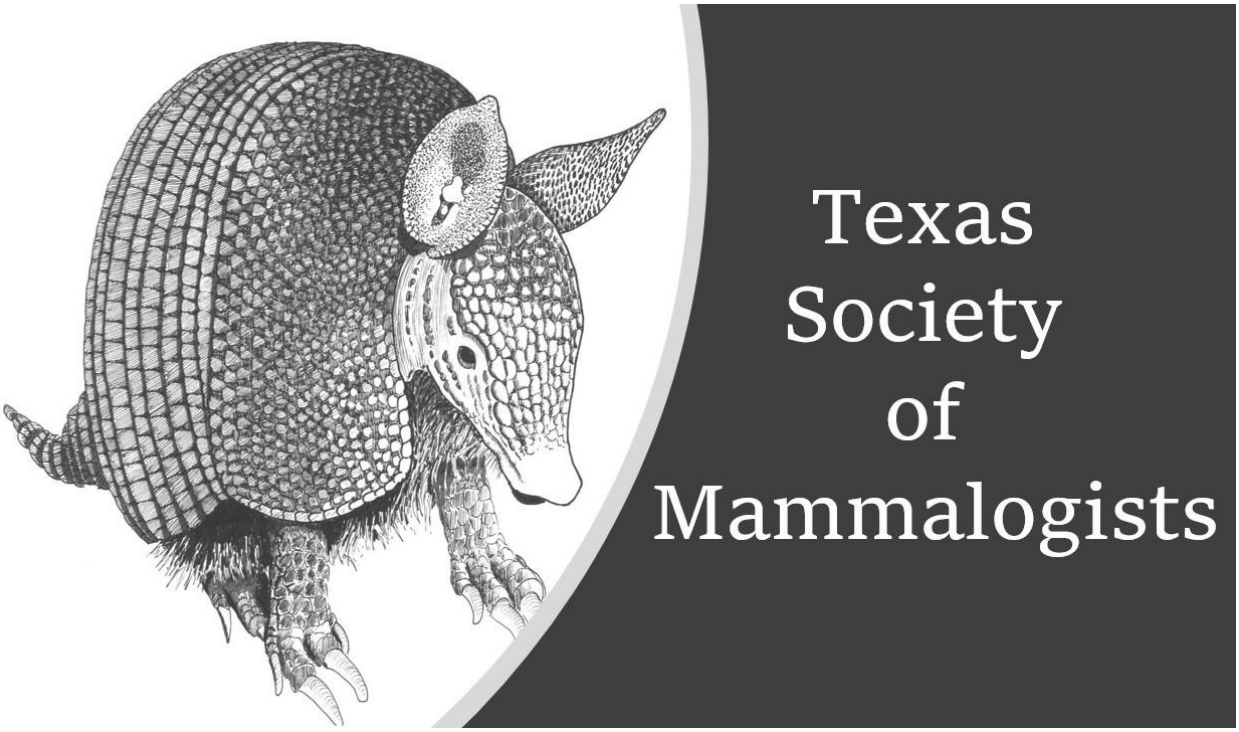


Student Presentation Abstracts
The 44th Annual Meeting
2026

Oral Presentation Abstracts

Paper 1 is to be considered for the Packard Award.

Paper 1

BLUBBER METABOLITE PROFILES REVEAL ENVIRONMENTAL ADAPTATIONS IN NORTHERN GULF OF MEXICO DOLPHINS Makayla Guinn[1], Dara N. Orbach[1], and Hussain Abdulla[2] - [1]Department of Life Sciences, Texas A&M University – Corpus Christi; [2]Department of Physical and Environmental Sciences, Texas A&M University – Corpus Christi (mguinn1@islander.tamucc.edu)

Common bottlenose dolphins (*Tursiops truncatus*) inhabit bays, sounds, and estuaries along US coastlines that are influenced by varying levels of anthropogenic impact. Biochemical changes can accumulate in dolphin blubber over several weeks to months, making blubber metabolites informative biomarkers of molecular adaptations to variable inshore conditions. This study investigated the metabolomic signatures of four free-ranging bottlenose dolphin stocks inhabiting the inshore waters of Mississippi and South Texas. Untargeted metabolomics was performed on blubber samples (n = 67) using ultra high-performance liquid chromatography mass spectrometry. Pathway enrichment analyses comparing detected metabolites revealed five major metabolite groups that were regulated significantly differently between each stock, including lipid and energy metabolism, inflammatory and immune signaling, membrane integrity and cellular signaling, endocrine regulation, and protein and amino acid turnover. Our results suggest dolphins in each stock exhibit distinct metabolic and physiological responses to environmental and anthropogenic stressors and warrants the use of blubber biomarkers to measure biochemical adaptations in cetaceans. An improved knowledge of habitat-specific physiological responses will offer critical insights into how cumulative impacts may affect the health and adaptive capacity of vulnerable species in dynamic coastal ecosystems.

Papers 2-9 are to be considered for the William B. Davis Award.

Paper 2

EIGHT YEARS OF SMALL MAMMAL MARK-RECAPTURE RESEARCH IN WESTERN OKLAHOMA: TRENDS AND HANTAVIRUS PRESENCE Claire Wiley[1], Francisca M. Mendez-Harclerode[2], Gloria M. Caddell[1], Chad B. King[1], and Michelle L. Haynie[1] - [1]Department of Biology, University of Central Oklahoma; [2]Department of Biology, Bethel College (cwiley6@uco.edu)

The purpose of this project is to monitor changes in small mammal populations and communities over multiple generations to determine what factors affect how the populations and communities change over time. In March of 2018, a permanent trapping web was established at the University of Central Oklahoma's Selman Living Lab (SLL). Two additional permanent webs were established in June of 2018. SLL is located in the gypsum hills of Woodward County in western Oklahoma. Surveys of the 3 webs are conducted for 3 nights, 4 times a year, and include collection of mammalian and vegetation data. Climate data also is obtained for each day of the trip; monthly and yearly climate data also will be assessed. To date, 28 mammalian and 27 vegetation surveys have been conducted. During processing, each small mammal is subject to species identification, weighing, ear clipping for DNA samples, a unique mark (e.g., toe clip or ear tag), fecal sampling, and a viral oral swab. Thus far, 19 individuals have tested positive for hantavirus, as shown by polymerase chain reactions (PCRs) and gel electrophoresis. Preliminary Shannon Diversity models constructed using R have shown fluctuations in values over time across all three webs, peaking for Web I in 2021 (1.93), Web II in 2019 (1.73), and Web III in 2024 (2.12). In the future, the animal, climate, and vegetation data will be used to build mathematical models that can be used to determine which factors have the largest impact on population and community persistence.

Paper 3

PRELIMINARY FINDINGS ON HABITAT PREFERENCES OF DAVIS MOUNTAIN COTTONTAILS (*S. HOLZNERII ROBUSTUS*) IN THE DAVIS MOUNTAIN RANGE

H. A Shapiro[1], C. Wzientek[1], D. Karelus[2], and A.M. Martin[1,3] - [1]Caeser Kleberg Wildlife Research Institute, Texas A&M University – Kingsville, Kingsville, TX 78363 USA; [2]Texas Parks and Wildlife Department, Austin, TX 78744 USA; [3]Department of Biology, Grand Valley State University, Allendale, MI 49401 USA (hannah.shapiro@students.tamuk.edu)

Little is known about habitat requirements of Davis Mountain cottontail rabbits (DMCR); however, they are assumed to be montane specialists. DMCR have been documented to use dense thickets of evergreen woody plants and rocky crevices as refugia. Our objective was to determine habitat use of DMCR in the Davis Mountains region of Texas. We conducted vegetation sampling during May-August 2025 at sites where rabbits were visually observed and at randomly located points within the same area to gain understanding of plant associations. Preliminary woody plant data indicate that catclaw mimosa (*Mimosa aculeaticarpa*) and prickly pear (*Opuntia* sp.) were found at 8.3% and 12.5%, respectively, of the locations where DCMR were observed during the dry-to-wet intermediate season (May-June). For herbaceous plant usage, preliminary assessments indicate that during the dry-to-wet intermediate season, DMCR were always associated with sand dropseed (*Sporobolus cryptandrus*); however, during the wet season (July – September), they used a wider variety of species, with Grama varieties (*Bouteloua* spp.) making up about 40% of usage, and sand dropseed was not used. Locations were also categorized in five ways: bare, rocky, plant cover, plant litter, and other. Rabbits were associated with plant ground cover during the dry-to-wet intermediate season; however, during the wet season when herbaceous plants were more productive, rabbits were associated with bare and rocky ground cover. This preliminary observation may be due to seasonal differences in availability of escape cover; availability will be accounted for in future analyses. We also observed rabbit habitat utilization during flee behavior at two sites: one dominated by grassland and one categorized as urban. Of the 7 rabbits observed, 6 of the rabbits (85.72%) fled to vegetation structures, while 1 (14.29%) rabbit fled to rock structures. These are the first fine-scale data to assess plant associations and habitat utilizations in DMCR.

Paper 4

BATS AND WATER: GUZZLER DESIGN INFLUENCES BAT ACTIVITY IN THE TRANS-PECOS OF TEXAS

Manuel Quispe-López[1], Bonny McKinney[2], and Richard D. Stevens[1,3] - [1]Department of Natural Resources Management, Texas Tech University; [2]El Carmen Land & Conservation Company; [3]Natural Sciences Research Laboratory, Museum of Texas Tech University (mquispel@ttu.edu)

Bats are among the most imperiled mammals in Texas, with 23 species listed as Species of Greatest Conservation Need. In the arid Trans-Pecos of the Chihuahuan Desert, man-made water sources are often installed to benefit game species, but little is known about benefits to non-target species such as bats, or how benefits vary among water-source designs. We evaluated whether man-made waters increase bat activity and which guzzler designs are most effective. We conducted our study on property managed by El Carmen Land and Conservation Company in the Trans-Pecos region. We examined 37 man-made water sites across six water types (large earthen tanks plus five wildlife guzzler designs). At each site, we deployed paired acoustic detectors, with one placed ~15m from the water source and the other placed 200m away to measure ambient bat activity. Detectors recorded for 18 nights per site in rotating deployments from September 2022 to August 2023. Bat calls were identified using Kaleidoscope, and activity was quantified as the summed number of bat passes across all nights. We recorded 331,227 bat calls in total. Generalized linear mixed models showed higher total calls at water sources than at paired controls, but the magnitude depended on water type and guzzler design. Earthen tanks consistently had higher call rates than all guzzler types, for total calls and across species-level models. Among water-present guzzlers, designs with larger water surface areas had the highest call rates, whereas those with smaller water surface areas had significantly lower call rates. Species-level patterns mirrored these

results, with strong design-dependent contrasts in *Antrozous pallidus*, *Parastrellus hesperus*, and several *Myotis* species, whereas molossids showed weaker differences. Our results highlight that man-made water architecture can influence bat activity and which architecture to employ may be an important management decision when aiming to benefit game and non-target species alike.

Paper 5

ENVIRONMENTAL DRIVERS OF MIGRATION AND ECTOPARASITE DYNAMICS IN MEXICAN FREE-TAILED BATS (*TADARIDA BRASILIENSIS*) Kristin. E. Dyer[1], Meagan Allira[1], Bret M. Demory[1], Mackenzie G. Hightower[1], Jackson T. Wingert[2], Krystie A. Miner[3], Amanda M. Adams[3], Winifred F. Frick[3], Jeremy D. Ross[1], Kevin T. Castle[4], and Daniel J. Becker[1] - [1]School of Biological Sciences, University of Oklahoma, Norman, OK; [2]Department of Biology, University of Louisiana at Lafayette, Lafayette, LA; [3]Bat Conservation International, Austin, TX; [4]Wildlife Veterinary Consulting, Livermore, CO (kristin.dyer-1@ou.edu)

Long-distance migration can facilitate parasite transmission between seasonally connected habitats, yet the role of migration in structuring ectoparasite dynamics remains poorly understood in bats. In migratory hosts, parasites must persist through dramatic seasonal changes in host density, climate, and movement, creating complex interactions between environment, host behavior, and transmission. Mexican free-tailed bats (*Tadarida brasiliensis*) migrate annually between Mexico and the southwestern United States, forming summer maternity colonies that can exceed 20 million individuals, where dense host aggregations may promote parasite spread. We assessed seasonal and site-specific parasite dynamics through monthly and bi-monthly sampling at Selman Cave, Oklahoma (n = 1124), and Bracken Cave, Texas (n = 459) during 2023–2025. Bats were screened for ectoparasites, PIT-tagged, and assessed for body condition via mass. To examine the relationship between parasitism and migration, we radio-tagged a subset of bats and tracked fall departure using the Motus Wildlife Tracking System. Radio-tagged individuals were tracked from Oklahoma through Texas and into northern Mexico, revealing stopover and long-distance movement up to 1157 km. Using generalized additive models, we tested for seasonal patterns in ectoparasite prevalence, the influence of parasitism on migration timing, and the effects of climate on both. Flea prevalence and abundance exhibited strong seasonal patterns ($p < 0.001$), with higher rainfall corresponding to increased prevalence ($p = 0.03$) and abundance ($p < 0.001$). Temperature predicted migration departure ($p < 0.001$), while ectoparasite prevalence and richness were not significant predictors. These findings suggest that migration timing is primarily influenced by environmental factors and that migration may serve as an effective dispersal mechanism for ectoparasites.

Paper 6

WHEN ROADS BECOME BARRIERS: BOBCAT (*LYNX RUFUS*) AND OCELOT (*LEOPARDUS PARDALIS*) MOVEMENT AND LANDSCAPE PERMEABILITY IN SOUTH TEXAS Sean Kiernan[1], Simona Picardi[2], Emma Brookover[1], Elizabeth Grunwald[1], Terry Hanzak[1], Thomas Langschied[1], Daniel Scognamillo[3], Jack Towson[1], Thomas Yamashita[4,5], John Young[6], and Michael Tewes[1] - [1]Caesar Kleberg Wildlife Research Institute, Texas A&M University – Kingsville; [2]Department of Fish and Wildlife Sciences, University of Idaho; [3]Safari Club International Foundation; [4]Fish, Wildlife, and Conservation Biology, Colorado State University; [5]Rocky Mountain Research Station; [6]Environmental Affairs Division, Texas Department of Transportation(sean.kiernan@students.tamuk.edu)

Roads are a pervasive source of habitat fragmentation and mortality for wildlife, yet their effects on fine-scale movement patterns remain poorly understood for many carnivore species. In South Texas, ocelots (*Leopardus pardalis*) are a high-priority conservation species, but low densities and a restricted range limit direct study of their movement. Bobcats (*Lynx rufus*), which share life-history traits and occupy overlapping habitats, serve as a model for evaluating how roads influence felid movement and landscape connectivity. Using long-term GPS telemetry data from both species, I applied a barrier behavior framework to quantify road permeability and assess how road characteristics, traffic volume, and individual behavioral traits influence movement decisions. Specifically, I examined (1) whether high-

traffic roads act as movement barriers, producing altered or trapped behaviors; (2) differences in movement behavior between resident and transient individuals; (3) variation in road-crossing frequency among individuals; and (4) how movement patterns can inform broader connectivity and conservation strategies for ocelots. By integrating GPS movement data with road and landscape metrics, this study identifies behavioral responses of bobcats to anthropogenic barriers at multiple spatial and individual scales. Identifying roads that limit movement, individuals that can navigate barriers, and the role of transient movements offers actionable guidance for conservation planning. This work supports evidence-based mitigation strategies, including targeted placement of wildlife crossing structures, to maintain functional connectivity for ocelots and sympatric carnivores in fragmented habitats. Ultimately, apply a barrier behavior analysis to bobcats advances our ability to predict and manage road impacts on low-density felids in human-modified landscapes.

Paper 7

WHY DID THE CAT CROSS THE ROAD? EXPLORING THE GENOMIC LINK UNDERLYING DECISION-MAKING BEHAVIOR IN WILD CATS

Jack Towson[1], John Young[2], Emma Brookover[1], Brian Davis[3], Jan Janečka[4], Lucas Spetic da Selva[3], and Michael Tewes[1] - [1]Caesar Kleberg Wildlife Research Institute, Department of Rangeland and Wildlife Sciences, Texas A&M University – Kingsville; [2]Environmental Affairs Division, Texas Department of Transportation; [3]College of Veterinary Medicine and Biomedical Sciences, Texas A&M University; [4]School of Science and Engineering, Duquesne University (jack.towson@students.tamuk.edu)

Roads are critical infrastructures of the global economy, but they raise concerns about habitat fragmentation. Wildlife will modify their behavior in response to road-related threats by exhibiting altered movement patterns. In South Texas, bobcats (*Lynx rufus*) and ocelots (*Leopardus pardalis*) are prime roadkill candidates, vulnerable to ecological difficulties exacerbated by roads. The endangered status of ocelots in the United States amplifies the need to mitigate road mortalities to sustain its genomic diversity. Despite progress towards identifying local wildlife hotspots, limited genomic research has been conducted to understand felid decision-making around roads. In this study, bobcats and ocelots were captured at Laguna Atascosa National Wildlife Refuge and private ranches around U.S. Highway 77 and Farm-to-Market 1847. Blood samples were collected, and felids were fitted with GPS or VHF collars to assess movement patterns. Genomic DNA from nearly 450 blood samples was extracted, and whole genome sequences were developed. Single nucleotide variants (SNVs) were called for individual cats and then jointly across all cats. Additionally, SNVs were called in ten genes hypothesized *a priori* to influence decision-making. A gene ontology (GO)-esque functional categorization of the bobcat genome was performed to select the candidate genes. Genomic variation in these targeted genes was analyzed for all individuals across traits relating to road crossing probability. Population relatedness will be used to assign "genomic IDs" and construct pedigrees to ultimately determine roadkill individuals' origin. The kinship analyses will allow us to identify inherently high-risk individuals and quantify 'heredity of roadkill vulnerability.' Collectively, these genomic dynamics will illuminate the functional adaptability shaping these wild cats' persistence in an expanding urban environment. By coupling behavioral ecology with functional genomics, informed decision-making regarding wildlife crossing structures will be implemented to maximize the fitness of these species, despite the challenges roads present to their future in Texas.

Paper 8

HISTORICAL AND CONTEMPORARY DISTRIBUTION OF *MEPHITIS MACROURA* IN TEXAS J. Clint Perkins[1], Robert C. Dowler[2], and Richard D. Stevens[1,3] - [1]Department of Natural Resources Management, Texas Tech University; [2]Department of Biology, Angelo State University; [3]Natural Science Research Laboratory, the Museum, Texas Tech University (j.clint.perkins@ttu.edu)

The hooded skunk, *Mephitis macroura*, is one of the least documented mammals in Texas, and its distribution within the Trans-Pecos ecoregion has long been characterized by sparse records, uncertain species identification, and conflicting range interpretations. Although the species may be uncommon within the region, an alternative explanation is that survey effort has been insufficient to reliably characterize its presence. To evaluate these competing explanations, we independently reviewed and verified all known preserved specimens, compiled results from regional camera-trap surveys, and conducted targeted surveys in southern Brewster County. We performed a meta-analysis across 19 independent regional surveys to assess hooded skunk presence within the local four-species mephitid assemblage. Of 23 preserved specimens historically identified as hooded skunk, four could not be confirmed, suggesting that previous distribution estimates may be inflated by as much as 44%. Across the 19 independent surveys, the other three skunk species were documented in 86% of surveys, whereas hooded skunks were detected in only 26% and restricted to four counties. A Pearson's chi-squared test did not detect spatial structure across the four-species assemblage ($\chi^2 = 9.44$, df = 24, $p = 0.998$), suggesting community-level homogeneity, whereas a Fisher's exact test rejected the null hypothesis of equal regional distribution for hooded skunks ($p = 0.008$), demonstrating a nonrandom distribution pattern. Collectively, our results indicate these surveys were sufficient to characterize the local mephitid assemblage, but that hooded skunk records were disproportionately concentrated in the broader Davis Mountains region and southern Brewster County. The paucity of hooded skunk records is more consistent with a restricted distribution and potentially low population density rather than with insufficient survey effort. Similar distributional characteristics are observed in other primarily Neotropical mammals that receive conservation consideration in Texas, suggesting that comparable attention may be warranted for the hooded skunk.

Paper 9

AN UPDATED R PACKAGE FOR ECOLOGICAL CYCLICAL DATA: AN APPLICATION EXAMPLE FOR CERVID ACTIVITY PATTERNS Tatiana Velásquez-Roa[1], Maria A. Hurtado-Materón[2], Ángel L. Robles-Fernández[3], and Iván Castro-Arellano[1] - [1] Integrative Ecology Lab, Biology Department, Texas State University; [2]Ecology and Evolutionary Biology Program, Department of Ecology and Conservation Biology, Texas A&M University; [3]The University of Kansas. (yxh11@txstate.edu)

Temporal niche overlap can be effectively studied using null models, that are statistical tools that randomize ecological data to reveal underlying patterns. The Rosario algorithm, originally developed for a windows interface, has supported this type of analysis and has been used in more than 100 scientific publications. Most applications have focused on insect (25 studies) and mammals (21 studies), though it has also been applied to birds, anurans, and plants (i.e. phenological phenomena). Here, we present an application of a recently developed R-based *rosario* package, using the SIM Deer project dataset of approximately 85,000 images, which is freely available through Wildlife Insights platform. To ensure long-term usability and standardization, we transitioned the Rosario algorithm from Windows software to R programming environment. This transition increases accessibility and enhances compatibility with other R packages such as *activity* and *overlap*. Unlike these packages, *rosario* supports concurrent overlap analysis among multiple biological identities (e.g., individuals, species) providing a more comprehensive approach to studying cyclical ecological data. An assessment of activity patterns for three cervid species using the *activity*, *overlap*, and *rosario*, showed that all three approaches produce similar overlap estimates. This indicates that the overlap indices implemented in *rosario* (i.e., Pianka and Czekanowski) provide comparable results to those from already existing tools. In addition, the integration of a null

model framework enables a more robust assessment of significance by comparing empirical overlap values with those generated through randomization. Now, users can access *rosario* in R and work with a full suite of packages in one language, facilitating complementary insights into natural temporal patterns.

Paper 10 is to be considered for the Rollin Baker Award.

Paper 10

COMMON DOLPHINS (*DELPHINUS DELPHIS*) INCREASE *S*WIMMING SPEED AS AN AVOIDANCE RESPONSE TO VESSEL APPROACHES Soleil Delorge[1], Fadia Al Abbar[2,3], Lorenzo Fiori[1,3], and Dara N. Orbach[1] - [1]Department of Life Sciences- Texas A&M University-Corpus Christi; [2]Department of Wildlife, Ecology and Conservation & Department of Behavioral Ecology- Wageningen University; [3]Azores Delphis Project (sdelorge@islander.tamucc.edu)

Swim-with-dolphin (SWD) tourism activities expose dolphins to repeated close-range vessel maneuvers that can cause behavioral changes. Vessel presence is known to elicit short-term avoidance responses from dolphins. The effects of specific vessel approach types and repeated maneuvers during encounters remain poorly understood. We quantified the group swimming speeds of common dolphins (*Delphinus delphis*) before, during (parallel approach and three consecutive J-approaches), and after simulated SWD vessel approaches off São Miguel Island, Portugal. Dolphin group focal-follows were video-recorded at 50fps using an unoccupied aerial system (UAS). Swimming speed was calculated post hoc from 102 video segments (Before = 16, Parallel = 18, J1 = 21, J2 = 15, J3 = 16, After = 16) in which dolphin groups traveled in a straight-line trajectory. Parallel approach (trajectory matching) swimming speeds were not significantly different compared to the before-phase speeds. When the J-approach (path intersection trajectory) was the first vessel maneuver, dolphin swimming speeds increased significantly compared to the before-phase, indicating a strong avoidance response. Repeated J-approaches within a trial produced cumulative increases in swimming speed that persisted into the after-phase. These findings can provide guidance for managing vessel approach type and repetition to minimize disturbance during SWD tours.

Papers 11-14 are to be considered for the Bobby Baker Award.

Paper 11

UNRAVELLING THE DIVERSITY OF NONVOLANT SMALL MAMMALS ALONG THE PURUS RIVER, CENTRAL BRAZILIAN AMAZONIA, THROUGH FIELD WORK AND DNA BARCODING Aramide Oladiran[1], Camila Mayume[2], Joyce A. Voltolini[3], Maria Clara Ribeiro[4], Ana Lazar[4], Joyce R. Prado[2], Renato Gregorin[5], Ana Paula Carmignotto[6], Alexandre R. Percequillo[2], and Edson F. Abreu[1] - [1]Department of Biology, Angelo State University; [2]Universidade de São Paulo; [3]Instituto Butantan; [4]Universidade Federal do Rio de Janeiro; [5]Universidade Federal de Lavras; [6]Universidade Federal de São Carlos (aoladiran@angelo.edu)

Climate change and deforestation are altering the Amazon rainforest at unprecedented rates, increasing the urgency to document and study its biodiversity before major losses occur. Nonvolant small mammals, especially rodents and marsupials, represent a large portion of Amazonian biodiversity, yet little is known about the diversity and occurrence of small mammals across many regions of the Amazon. DNA barcoding has become an important tool for species identification by enabling accurate taxonomic assignments. In July 2024, we conducted a field expedition to the lower Purus River in central Brazilian Amazonia to survey nonvolant small mammals and generate molecular data to support species identification. Sampling was conducted at four sites using Sherman, snap, and pitfall traps, in addition to nocturnal hunting. With a total of 5,337 conventional trap-nights and 986 pitfall trap-nights, we captured 85 individuals representing 24 species, including nine marsupials and 15 rodents. Sampling success was 0.94% for conventional traps and 1.32% for pitfall traps. Sherman traps and nocturnal hunting yielded the highest number of species across methods (12 and 11 species, respectively), followed by pitfall traps (six species). To complement field identifications, rodent tissue samples were processed for DNA extraction

and barcoding using the Oxford Nanopore MinION adaptive sequencing platform. Preliminary analyses indicated that optimized extraction protocols yield DNA concentration sufficient for barcode generation, with complete mitochondrial genomes obtained for multiple samples, particularly within the species-rich genus *Oecomys*. All together, these findings highlight the high diversity of nonvolant small mammals in the Purus River basin and underscore the value of integrating field surveys with DNA barcoding. Our study provides an important baseline for future taxonomic, ecological, and conservation assessments in a region of the Amazon that remains poorly studied.

Paper 12

TEST OF A NUCLEAR GENE MARKER TO DISTINGUISH BETWEEN MEMBERS OF THE *MYOTIS CALIFORNICUS/CILIOLABRUM/LEIBII* COMPLEX

Lela Faison, Halle Summers, and Loren K. Ammerman - Department of Biology, Angelo State University (lfaison@angelo.edu)

Recent divergence of *Myotis californicus, M. ciliolabrum,* and *M. leibii* has prompted investigation into interspecific genetic and phenotypic differentiation within this cryptic species complex. Taxonomic determination and species identification for this complex has been difficult due to intraspecific geographic variation within *M. ciliolabrum* and *M. californicus* and morphological similarities among all three species. Previous studies using mitochondrial data failed to separate species within this complex accurately, whereas past research studying SNPs within this complex was able to recover groups consistent with their taxonomic designation. Because of success using genomic data, our goal was to test the efficacy of a nuclear intron (THY) as a genetic barcode for this complex. Using Sanger sequencing, we analyzed 648 bp of THY sequence and constructed a neighbor-joining tree containing 98 *Myotis* samples from all three species, some of which were included in the SNP study. Phylogenetic analyses recovered three distinct clusters, with SNP-verified samples grouping consistently with prior taxonomic designations. These findings support the use of THY intron as a simple barcode that could be used to confirm identification of members of this complex.

Paper 13

POPULATION STRUCTURE OF BOWHEAD WHALES USING MTDNA SEQUENCES

Alexandra A.Hernandez[1], John W. Bickham[2], John Citta[3], Amy B. Baird[1] - [1]Department of Natural Sciences, University of Houston – Downtown; [2]Department of Ecology and Conservation Biology, Texas A&M University; [3]Department of Wildlife Management, North Slope Borough (Hernandeza258@gator.uhd.edu)

The bowhead whale (*Balaena mysticetus*) is one of 16 baleen whale species and inhabits Arctic and subarctic waters. Bowhead whales are central to the subsistence, cultural, and spiritual traditions of Indigenous Arctic communities. Accurate knowledge of population structure and genetic diversity is essential for sustainable management. In this research, we examined mitochondrial DNA variation in three genes (ND1, HVR1, and Cytb) across bowhead whales from Bering Chukchi Beaufort (BCB) seas, Eastern Canada West Greenland (ECWG), and the Okhotsk Sea (OKS) stocks. The most recent samples analyzed were from 2025 and added to a database of samples dating back several decades. Standard population genetic analyses and haplotype network construction revealed strong differentiation of the Okhotsk (OKS) stock and weaker differentiation between BCB and ECWG stocks. These findings indicate that current management strategies, including regulated harvest, are not negatively impacting the genetic diversity of the BCB stock and provide a framework for ongoing long-term monitoring and conservation.

Paper 14

GENETIC CHARACTERIZATION OF PARASITIC NEMATODES (*CRASSICAUDA*) IN BOWHEAD AND BELUGA WHALES Tamsin L. Ward[1], Raphaela Stimmelmayr[2], David Rotstein[3], and Amy B. Baird[1] - [1]Department of Natural Sciences, University of Houston – Downtown; [2]North Slope Borough Department of Wildlife Management; [3]Marine Mammal Pathology Services (wardt21@gator.uhd.edu)

The *Crassicauda* genus of nematode is known to parasitize the organs, primarily urogenital system of the cetacean suborders *Mysticeti* and *Odontoceti*. Within the past 10 years, *Crassicauda sp*. have been found for the first time in BCB Bowhead (*Balaena mysticetus)* and more recently in northern beluga whale stocks (ESB; CS) *(Delphinapterus leucas)* in Alaska. Both whale species are important subsistence resources for Inupiaq and Siberian Yupik. A molecular analysis using the ribosomal ITS2 gene was performed to assess the phylogenetic relationships of unidentified nematodes taken from *B. mysticetus* and *D. leucas* kidneys. Four unique genetic lineages of nematodes were identified in total. The *D. leucas* nematodes were very diverse. All samples taken from *B. mysticetus* kidneys were genetically identical and closely related to one specimen found in two Cook inlet Belugas.

Paper 15 is to be considered for the TSM Award.

Paper 15

IDENTIFICATION OF NUCLEAR MITOCHONDRIAL INSERTIONS (NUMTS) ACROSS THE POCKET GOPHER GENUS *GEOMYS* Haider A. Khan and Russell S. Pfau - Department of Biological Sciences, Tarleton State University (haider.khan@go.tarleton.edu)

The use of mitochondrial genes is commonly employed for species delimitation and to infer phylogeographic structure in mammals. However, this approach can be compromised by the presence of nuclear mitochondrial DNA fragments (NUMTs)—nuclear DNA sequences that were inserted from the organism's mitochondrial genome. NUMTs may be unintentionally coamplified and misinterpreted as genuine mitochondrial variation. Recently inserted NUMTs are particularly problematic because they retain high sequence identity to mitochondrial DNA and thus easily co-amplified, generating spurious signals of divergence or cryptic lineages. There is documentation of NUMTs in many mammalian species (including rodents), but no experimentally validated, whole-genome assessment of NUMTs has been conducted in the pocket gopher genus *Geomys*. In this study, we use a recently assembled genome of *Geomys bursarius* to identify NUMTs and characterize NUMTs across the genus using complementary bioinformatic and experimental approaches. NUMTs were detected within the genome assembly of *G. bursarius* using the bioinformatic tools BLAST, NUMTfinder, and LASTZ. To identify the junction between the nuclear and mitochondrial sequences, NUMTs were then aligned to the mitochondrial genome of the individual from which the genome assembly was constructed. Primers were then designed to amplify identified junctions using polymerase chain reaction (PCR). Successful amplification of these junctions was confirmed by noting size of PCR products (to match expected amplicon size) and Sanger sequencing. Sequenced amplicons were aligned to their respective nuclear contigs from the genome assembly of *G. bursarius* to validate their existence as part of the nuclear genome. PCR amplification of these junctions across multiple species of *Geomys* was conducted to determine the presence of the same NUMTs in other species. Our results confirm the existence of NUMTs in multiple species of *Geomys* that are large and of high sequence identity. These findings emphasize the importance of accounting for NUMTs when conducting mitochondrial research.

Poster Presentation Abstracts

Posters 1-2 are to be considered for the Clyde Jones Undergraduate Award.

Poster 1

GENETIC IDENTIFICATION OF *PEROMYSCUS* SPECIMENS FROM SMALL MAMMAL MARK-RECAPTURE STUDIES IN WESTERN OKLAHOMA Kayli D. Newport[1], Claire A. Wiley[1], Francisca M. Mendez-Harclerode[2], and Michelle L. Haynie[1] - [1]University of Central Oklahoma, Department of Biology; [2]Bethel College, Department of Biology (knewport@uco.edu)

My project will entail genetic identification of *Peromyscus* specimens collected from the small mammal mark-recapture survey. Two species of *Peromyscus* are known to inhabit each of the three webs at the University of Central Oklahoma (UCO) Selman Living Lab (SLL): *Peromyscus maniculatus* (American deermouse) and *Peromyscus leucopus* (white-footed deermouse). The purpose of this project is to confirm species identity by utilizing genetic markers from previously collected specimens as part of the small mammal mark and recapture survey conducted at the UCO SLL. The small mammal collection is performed using Sherman live traps placed in three permanent sampling grids established in March and June of 2018 at the SLL. During the first capture, each specimen will be processed. This includes identifying the species, sex, age class, body condition, and reproductive condition of the mammal. Weight and standard measurements are taken, along with taking ear clips for DNA and applying a unique identifier (tattoo, toe clipping, or ear tag). The capture date, web number, and trap number are all recorded. DNA for every sample will be extracted from ear clippings using a DNeasy Blood and Tissue Extraction Kit (Qiagen). DNA will be amplified with two different forward-specific primers, which target 159 bp fragments for *P. leucopus* (P. leuco-F-9263) and 225 bp fragments for *P. maniculatus* (P. mani-F-9197), along with the reverse primer H9375. As of Jan 1, 2026, 363 *Peromyscus* have been genetically identified, and 19 samples need to be re-extracted.

Poster 2

GENETIC VARIATION AND PHYLOGEOGRAPHY OF *EUMOPS PEROTIS* (WESTERN MASTIFF BAT) Daniela Childress and Loren K. Ammerman - Department of Biology, Angelo State University (dchildress2@angelo.edu)

The Western Mastiff Bat, *Eumops perotis*, is the largest bat in the United States, with a distribution extending into South America. They are adapted for fast flight and typically fly high above the ground resulting in low encounter rates in mistnet surveys. As a result, few specimens exist and minimal population genetic studies have been conducted on this species. Neither patterns of gene flow within this species or the genetic variation across its distribution are known. Analysis of DNA sequences can reveal phylogeographic patterns and provide a measure of genetic variation. In this research, we sequenced the mitochondrial cytochrome *b* gene and the control region to examine the phylogeography of this species and to fill in data deficiencies. Tissue samples of 30 individuals from Texas, California, Peru, and Paraguay were requested from several institutions for DNA extraction. PCR, Sanger sequencing, and haplotype analysis was performed, which revealed patterns of diversification. Our preliminary phylogenetic analysis revealed no distinct patterns of diversification relative to their collection site except some distinction between specimens in South America compared to North America.

Posters 3-7 are to be considered for the Vernon Bailey Undergraduate Award.

Poster 3

SEVEN YEARS OF CAMERA TRAPPING MAMMALS AT ABILENE STATE PARK, TAYLOR COUNTY, TEXAS Lyndsey K. Klein, Kailey F. McHenry, and Thomas E. Lee, Jr. - Department of Biology, Abilene Christian University

This is the seventh year of our camera trapping survey of Abilene State Park. This camera trapping survey of large to medium sized mammals was conducted from early September to early November 2025 as part of the Snapshot USA program. This camera trapping survey was part of a national effort in the snapshot program. In this study, we used 12 browning strike force HD cameras. Locations were chosen to avoid human interference, maximize habitat diversity and wildlife encounters. In this survey we recorded eleven species of mammals. The species encountered include *Canis latrans, Dasypus novemcinctus, Lynx rufus, Mephitis mephitis, Peromyscus* sp., *Odocoileus virginianus, Procyon lotor, Sciurus niger, Sus scrofa, Sylvilagus* sp. and *Urocyon cinereoargenteus.* The three most photographed animals were *Sus scrofa*, *Odocoileus virginianus,* and *Sciurus niger*. The park was under a drought, Lake Abilene (a reservoir in the park) completely dried up and the streams in the park had only intermittent pools. In addition to documenting mammalian species present in the Abilene State Park and their abundance, some interesting natural history findings were recorded.

Poster 4

MESOPREDATOR USE OF WILDLIFE CROSSINGS IN SOUTH TEXAS Elena Gonzales, Spencer Ferguson, Emma Brookover, and Michael Tewes - Caesar Kleberg Wildlife Research Institute, Texas A&M University–Kingsville (elena.gonzales@students.tamuk.edu)

Wildlife Crossing Structures (WCSs) are artificially designated structures or routes that reconnect fragmented habitats and are essential for reducing wildlife-vehicle collisions and wildlife road mortality. In South Texas, WCSs are recognized for supporting federally endangered species, such as the ocelot, a medium-sized cat found in only two isolated populations in South Texas. In addition, WCSs are also regularly used by a diverse range of wildlife, including five common mesocarnivores: bobcats (*Lynx rufus*), northern raccoons, opossums (*Didelphis virginiana*), striped skunks (*Mephitis mephitis*), and coyotes (*Canis latrans*). The presence and activity of these species at WCSs can vary depending on localized variations such as crossing design, road construction, seasonal resource availability, and proximity to developed areas. These factors influence both the frequency and nature of wildlife interactions recorded by camera traps. Researchers at Texas A&M University–Kingsville are monitoring five WCSs along Farm-to-Market Road 1847 in Willacy County, Texas. The objective of this study is to analyze how site-specific variables shape mesocarnivore passage success and behavioral interactions at each crossing. Each crossing will be evaluated based on the abundance of species-specific sightings, the proportion of Type A interactions (full crossings), seasonal trends in use, and distance from urban development. Data was collected by the Cesar Kleberg Wildlife Research Institute South Texas Ocelot Project from September 2024 to September 2025 using camera traps and a behavioral grading system to classify interaction types. Detections are counted in 30-minute intervals for each species captured by multiple cameras. Findings from this study may reveal how crossing success differs by species, season, and site, providing support for additional WCS implementation along other major highways and planned mesocarnivore conservation strategies based on species-specific trends.

Poster 5

A TEST OF RELATIVE ABUNDANCE OF GRAY FOX (*UROCYON CINEREOARGENTEUS*) AND COYOTES (*CANIS LATRANS*) IN URBAN VERSUS RURAL LANDSCAPES Isabella Ortiz de Camargo and Thomas E. Lee, Jr. - Department of Biology, Abilene Christian University, Abilene, Texas 79699 (ixo23b@acu.edu)

Gray Fox (*Urocyon cinereoargenteus*) have been observed on numerous occasions in the city of Abilene Texas. However, a seven-year camera trapping study of Abilene State Park (which is in a rural part of Taylor County and not in the city of Abilene) found that sightings of gray fox were either rare (one or two per year) or nonexistent. It has been thought that gray fox use urban areas has human shields from coyotes (*Canis latrans*). In the Fall of 2025, we setup 12 camera traps at Abilene State Park which were part of the Snapshot USA program and nine cameras within the highway loop surrounding the city of Abilene, Texas. The city cameras were placed in riparian habitat next to Cedar Creek (walking) Trail and in residential back yards that border Elm Creek. Our hypothesis was that gray fox would be statistically significantly more common within the city than at the State Park and coyotes would be more common at the park. We ran a t-test on the two samples and found that gray foxes were significantly different with a $P < 0.02$. Whereas there were more coyote sightings in the park than within the city, the numbers were not statistically significant. We have photographic evidence that shows that gray foxes use the roofs of buildings and houses perhaps to avoid interaction with coyotes and dogs rather than that coyotes just avoid proximity to humans (which they do not).

Poster 6

HORMONES, HIGHWAYS, AND THE ROAD AHEAD: GENOMIC INSIGHTS INTO BEHAVIOR AND SURVIVAL OF SOUTH TEXAS WILD CATS Denay Hernandez, Jack Towson, Emma Brookover, and Michael Tewes - Caesar Kleberg Wildlife Research Institute, Texas A&M University–Kingsville (denay.hernandez@students.tamuk.edu)

Roads are vital to economic expansion, but they act as pervasive barriers to wildlife movement and genomic connectivity. In South Texas, the bobcat (*Lynx rufus*) and ocelot (*Leopardus pardalis*) are prime roadkill candidates due to their wide-ranging dispersal. Ocelots are endangered in the United States and face reduced gene flow and population size from roads limiting dispersal and isolating individuals. Roads can disrupt hormonal pathways, resulting in infertility, altered parental care, and reduced kitten survival. Understanding hormonal genomics and its ecological consequences will help connect the hormonal activity that drives road-crossing success with overall fitness. While local road ecology research has progressed, no genomic research has examined how hormones related to stress, reproduction, and behavior affect road-crossing decisions in wild cats. In this study, bobcat and ocelot blood samples were used from across South Texas, including Laguna Atascosa National Wildlife Refuge and private ranches along U.S. Highway 77 and FM 1847. Genomic DNA was extracted, and whole-genome sequences were developed from over 400 samples collected from 1985 to present to evaluate genomic variation. Single-nucleotide polymorphisms were detected in five candidate hormonal genes to assess genomic diversity and population structure. These genes were identified in a functional categorization of the bobcat genome and selected due to their roles in stress regulation, reproductive fitness, and behavioral responses. Based on behavioral and physiological patterns, these findings will contribute to ocelot conservation by informing strategic placement of wildlife crossing structures and improving connectivity of felid populations facing increasing anthropogenic pressures in an urban environment.

Poster 7

ASSESSING THE CORRELATION BETWEEN BOBCAT PRESENCE, PREY PRESENCE, AND SURROUNDING ENVIRONMENT IN SOUTH TEXAS Emma McMillian, Spencer Ferguson, Emma Brookover, and Michael Tewes - Caesar Kleberg Wildlife Research Institute, Texas A&M University- Kingsville, Kingsville, Texas (emma.mcmillian@students.tamuk.edu)

In South Texas, bobcats (*Lynx rufus*) are a wild cat species commonly detected in dense brush patches. They often hunt for small prey species such as cottontail (*Sylvilagus floridanus*) and rodents (*Rodentia* spp.). Variables such as brush density, water availability, and prey abundance can generate variance in their habitat zones. Similar research has been conducted in South Texas; however, other studies focused on ecological variables such as co-occurrence, abundance, behavior, and occupancy modeling across carnivore species. This project will assess the detection of bobcats at 46 camera sites, spread over 4,400 hectares (~ 17 square miles) on a South Texas ranch. Detections are considered 30-minute intervals for each species captured by game cameras. The surrounding environment, the presence of small prey species, and comparing these findings to the presence of bobcats will be evaluated to identify the ecological correlation between bobcats and small prey. First, we will compare bobcat detections to small prey detections. Second, we will use data as input to compare the detections of bobcats and small prey species to the habitat locality and habitat containing the camera. Our research depends on these data to facilitate future research projects that rely on bobcat trapping, bobcat spatial distribution, and behavioral studies. Our results will determine which habitat is best for future bobcat research projects and will better inform conservation strategies aimed at identifying what habitat needs to be protected and managed for bobcats and other wild carnivorous species in South Texas.

Posters 8-15 are to be considered for the Vernon Bailey Graduate Award.

Poster 8

CAMERA TRAPPING IN RIPARIAN CORRIDORS WITHIN PEARL JACKSON CROSSTIMBERS PRESERVE (WIP) Teague Fox and Vicki Jackson - University of Central Oklahoma (tfox11@uco.edu)

The Pearl Jackson Crosstimbers Preserve is a new nature preserve that was recently acquired by The Nature Conservancy. This area is about 50 sqkm made up of rough terrain mixed with disused barb wire fences and rugged slopes. This area cannot be properly managed without knowledge of what organisms are currently utilizing the preserve. Camera trapping surveys allow for long-term, non-invasive monitoring of wildlife over a large area. Riparian corridors are contours in the landscape typically following the path of water. These corridors can act as a cross section of the overall diversity for the preserve. For this survey of the preserve we will be placing 25 cameras throughout these riparian corridors with possible locations being placed every 500 meters in each identified corridor. By placing camera traps in these areas, we will be able to get a better survey of the mammalian population. This will hopefully act as a cross section for the overall preserve. Cameras will be left out for 1 continuous year from August 2025-August 2026, with each camera being checked once a month at the minimum. The goal of this survey is to gather enough data to create occupancy models for what species are using the preserve and where they are using it.

Poster 9

EVALUATING BAT COMMUNITIES ACROSS THREE WEST TEXAS MOUNTAIN RANGES USING MOBILE ACOUSTIC SURVEYS Kennedy Berry and Loren K. Ammerman - Department of Biology, Angelo State University (kberry7@angelo.edu)

Acoustic mobile transects are useful for tracking activity and diversity of bat communities. Different computer programs have been developed that can automatically identify the bat species based on the acoustic recording, but manual vetting of the results is standard practice. The goal of this study was to

analyze the bat activity and diversity found within three western Texas mountain ranges. For this study, we recorded along a highway transect near each of three major sky islands of west Texas - the Chisos Mountains, the Guadalupe Mountains, and the Davis Mountains. Thirty locations along each transect were sampled two nights in June, July, and August with two different types of detectors (AnabatII and Anabat Express). The calls were processed through Kaleidoscope Pro's Auto ID feature and were then manually vetted. More calls were recorded with Anabat Express compared to the AnabatII. There were 4,321 identified calls through manual vetting out of 7,614 calls recorded, while only 3,140 were identified with Auto ID. Because some call files recorded bat passes of multiple species, more calls were identified by manual ID. The species that was the most active both by month, location, and detector was *Tadarida brasiliensis*. Over all three sampling months combined the Chisos Mountains saw the highest activity. July saw the highest activity out of all three months. Results from Auto ID differed from manual ID likely because some rare species were more likely to be identified using manual vetting. Overall, the bat community described by these data are consistent with our knowledge of bat species occurrence, however, there were some unexpected species detected on our transects.

Poster 10

THE USE OF BRIDGES AS DAY-ROOSTS BY BAT SPECIES IN EAST TEXAS Jayme E. Czap[1], Makani L. Fisher[1], and Richard D. Stevens[12] - [1]Department of Natural Resources Management, Texas Tech University; [2]Natural Science Research Laboratory, Museum of Texas Tech University (jczap@ttu.edu)

Understanding resource selection is critical for wildlife management, particularly for bats, whose roosting decisions strongly influence their distribution. Bats are increasingly reported using highway infrastructure such as bridges as both day- and night-roosts, suggesting that bridge design and placement may affect roost availability. However, the influence of bridge characteristics and surrounding habitat on bat roosting remains poorly understood. We investigated whether specific bridge attributes promote bat day-roosting during winter and summer. From 2023 to 2025, we surveyed approximately 550 randomly selected bridges across the piney woods and post-oak savannah ecoregions of east Texas. For each bridge, we recorded 10 variables describing bridge structure and underside habitat, as well as season, ecoregion, bat species presence or absence, and abundance. We used negative binomial generalized linear models to assess relationships between bat abundance and bridge and habitat characteristics. Although five bat species were observed using bridges, analyses focused on the three most prevalent: *Tadarida brasiliensis*, *Eptesicus fuscus*, and *Perimyotis subflavus*. Prestressed concrete box girder bridges and the piney woods ecoregion significantly and positively influenced roosting for all three species. Bridge length was positively related, and average height was negatively related to *E. fuscus* abundance in bridges. *P. subflavus* was also positively influenced by bridge width and length. *T. brasiliensis* used bridges significantly more during the summer months. Bridge width, elevation and U.S. highway road types had a positive correlation with *T. brasiliensis* roosting. However increased underside obstruction was negatively related to roosting within a bridge. Although bats used other bridge types, no significant associations were detected, highlighting the importance of box girder bridges for bat conservation. These findings provide practical guidance for transportation and conservation planning by identifying bridge designs that promote bat roosting.

Poster 11

SPATIAL VARIATION OF AN INSECTIVOROUS BAT ASSEMBLAGE IN RESPONSE TO LANDSCAPE HETEROGENEITY AND PREY AVAILABILITY IN THE RURAL LANDSCAPE OF LIMA-PERU, PACIFIC COASTAL DESERT Jorge Rivero[1] and Richard Stevens[1,2] [1]Department of Natural Resources Management, Texas Tech University; [2]Natural Science Research Laboratory, Museum of Texas Tech University (jorgeriv@ttu.edu)

Spatial heterogeneity is a driver of bat diversity and distribution, providing various suitable areas for roosting and foraging. Fourteen insectivorous species occur in rural areas in the Pacific coastal desert of

South America, yet it is unclear whether coexistence relies on habitat specialization or prey availability. The project's primary goal is to investigate how the insectivorous bat assemblage responds to landscape composition and prey availability in the rural zone of Lima. Specifically, an important aim is to predict the occurrence of threatened species (*Tomopeas ravus* and *Amorphochilus schnablii*) and identify potential roosting and foraging sites. Bat activity will be sampled through passive acoustic monitoring at 30 sites during the austral winter and summer across the rural zone of Lima to estimate species richness, composition, and occupancy. Nine covariates will be used for landscape characterization at each site: percentage of the four most dominant vegetation units of the Peruvian Map of Ecosystems (desert, agricultural zone, lomas, and Andean shrublands), normalized vegetation index, distance to urban zones, distance to water bodies, elevation, and slope. Insect biomass will be sampled as a proxy of prey availability. Expected outcomes include a comparative assessment to identify areas with high species richness and scale-dependent species-habitat associations based on landscape and prey composition. This project aims to enhance our understanding of coexistence within an assemblage of 14 insectivorous bat species, potentially leading to future studies on ecological niches and co-occurrence. From a conservation perspective, outcomes include the development of an acoustic monitoring protocol and a local map to predict occurrences for threatened and data-deficient bat species.

Poster 12

IMPACTS OF CAPTIVITY ON BONE DENSITY AND LOCOMOTION IN MEXICAN GRAY WOLVES (*CANIS LUPUS BAILEYI*) Scott C. Spencer and Leila M. Siciliano-Martina - Department of Biology, Texas State University (ytg20@txstate.edu)

Captive management plays a vital role in endangered mammal conservation. However, long-term consequences of captivity are not fully understood. Cursorial, large home ranged carnivorans, such as gray wolves (*Canis lupus*), are particularly vulnerable to captive conditions. This study seeks to examine the impacts of captivity on bone density and locomotor morphology in the Mexican gray wolf (*Canis lupus baileyi*), a critically endangered subspecies with both captive and reintroduced wild populations. While prior research has documented cranial differences between captive and wild Mexican gray wolves, postcranial effects of captivity remain unexplored. This project will assess trabecular bone density in the humeri and femurs of 20 Mexican gray wolf specimens from the Museum of Southwestern Biology (MSB), divided between 10 captive and 10 wild individuals. Using microCT, trabecular bone volume fraction (BVF) will be quantified as an indicator for bone density. BVF will be calculated through calibrated mineral density comparisons using three-dimensional image analyses to ensure methodological robustness. We will then evaluate differences in mean BVF between captive and wild wolves, as well as between forelimb and hindlimb densities within individuals. We hypothesize that captive wolves will exhibit significantly reduced trabecular bone density relative to wild wolves, reflecting decreased mechanical loading. Additionally, we predict a greater reduction in forelimb bone density compared to hindlimbs, given previous studies of carnivoran locomotion. Results from this study will address a critical gap in understanding how captivity affects postcranial skeletal health in endangered canids. Findings will have direct implications for zoo management, captive breeding programs, and reintroduction efforts by informing potential enclosure design and enhanced welfare strategies. Ultimately, this research aims to improve the long-term survival and functional performance of Mexican gray wolves released back into the wild and contribute to the broader study of captivity's effects on carnivore morphology and locomotion.

Poster 13

MULTI-SPECIES ASSESSMENT OF WILDLIFE–VEHICLE COLLISIONS USING BOBCATS AND SYMPATRIC WILDLIFE TO INFORM OCELOT CONSERVATION IN SOUTH TEXAS

Rupesh Maharjan[1], Sean Kiernan[1], Jack Towson[1], Elizabeth Grunwald[1], Thomas Langschied[1], Spencer Ferguson[1], Thomas J. Yamashita[2], John H. Young Jr.[3], Emma Brookover[1], and Michael E. Tewes[1] - [1]Texas A&M University-Kingsville, Caesar Kleberg Wildlife Research Institute; [2]Colorado State University; [3]Environmental Affairs Division, Texas Department of Transportation (rupesh.maharjan@students.tamuk.edu)

Globally, road networks have been expanding rapidly and are expected to increase further in the coming years. With more than 6.7 million km of roads available for public use, the United States benefits from a fast and efficient transportation network that facilitates the movement of people and goods across long distances. However, the same linear infrastructure can act as a physical barrier in wildlife movement resulting in habitat fragmentation. For wide-ranging meso-carnivores like ocelot (*Leopardus pardalis*) and bobcat (*Lynx rufus*), habitat fragmentation often increases the risk of wildlife-vehicle collisions that may lead to population level endangerment like it has with the ocelot. Because bobcats share similar movement patterns and habitat preferences with ocelots at south Texas, they are often used as a surrogate species to study and predict the impacts of roads on the more elusive ocelots. Building on this approach, we aim to describe the spatio-temporal distribution of wildlife-vehicle collisions along two South Texas highways by identifying potential roadkill hotspots and evaluating the environmental and road-related factors that contribute to collision risk. We will conduct wildlife road mortality survey along a section of US Highway 77 and Farm-to-Market Road 1847 once a week and record the spatial and temporal data of a roadkill. By identifying the key spatial, temporal, and environmental drivers of wildlife-vehicle collisions, this study will provide a foundation for predicting high-risk zones and informing the strategic placement of wildlife crossing structures, ultimately enhancing landscape connectivity and reducing mortality for bobcats, ocelot, and other sympatric species from vehicle collisions.

Poster 14

UNDERSTANDING DIEL ACTIVITY PATTERNS IN WILD BOAR (*SUS SCROFA*) INVASION SUCCESS: BEHAVIORAL PLASTICITY VERSUS CONSERVED TEMPORAL TRAITS

Namrata Bhandari and Iván Castro-Arellano - Department of Biology, Texas State University (lzy18@txstate.edu)

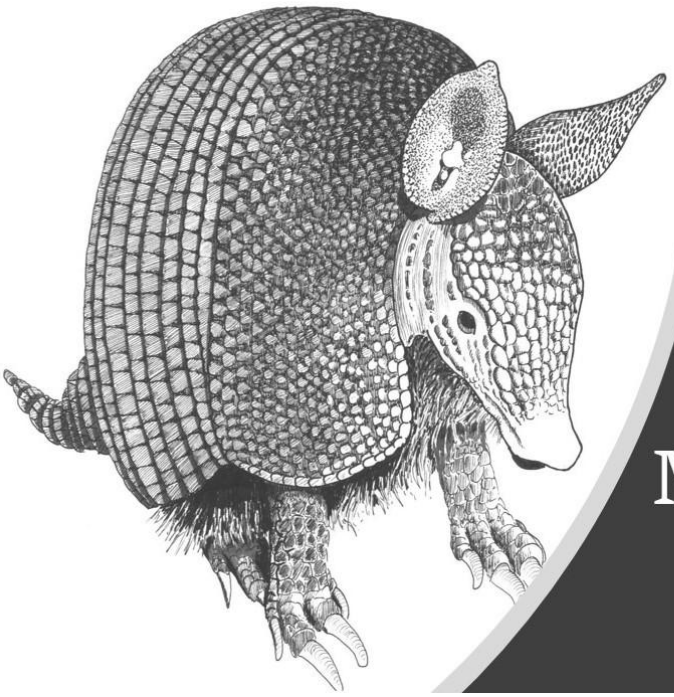
The wild boar *(Sus scrofa)* is among the most successful invasive mammals worldwide occupying a broad range of habitats across native and introduced ranges. Diel activity patterns (DAPs) likely play a significant role in their success, it remains unclear whether their global expansion is driven by high behavioral plasticity or evolutionarily conserved temporal traits. This study explores this dynamic through the lens of intraspecific diel temporal niche conservatism (Intra-DTNC): the tendency of populations to retain consistent activity patterns over time. We hypothesize that invasive wild boar populations exhibit significantly weaker Intra-DTNC than native populations, reflecting high plasticity to optimize foraging and avoid threats in novel environments. We further predict that nocturnality increases in response to higher maximum temperatures and closer proximity to human settlements, although habitat heterogeneity may mitigate these shifts by providing protective cover. To test these hypotheses, we will utilize time-stamped camera trap data from global repositories across continents. We aim to quantify Intra-DTNC using the ROSARIO randomization algorithm and analyze the influence of ambient temperature, human proximity, and habitat heterogeneity on nocturnality using generalized linear mixed models (GLMMs). By contrasting these patterns with the DAPs of related taxa, including peccaries, Asian and African suiformes, this study will provide the first macroecological test of temporal niche conservatism in an invasive mammal. These insights are critical for understanding behavioral shifts that facilitate the exploitation of novel environments and developing targeted management strategies in human-dominated landscapes.

Poster 15

CHARACTERIZATION OF *MYOCPLASMA* COMMUNITIES IN AOUDAD (*AMMOTRAGUS LERVIA*) POPULATIONS ACROSS TEXAS

Brendan Amman - Department of Biology, Texas Tech University (bamman@ttu.edu)

Outbreaks of pneumonia in desert bighorn sheep (*Ovis canadensis mexicanus/nelsoni*) in the Trans-Pecos ecoregion of Texas are thought to be a major contributor to population declines over the last decade. Recent detection of *Mycoplasma ovipneumoniae* in a nonnative ungulate, aoudad (*Ammotragus lervia*), from the Trans-Pecos ecoregion, suggests that aoudad may serve as a potential reservoir for pneumonia and a potential source of disease for desert bighorn sheep populations. Recent data suggest that in addition to competition for resources, the probability of disease transmission increases as aoudad and bighorn sheep populations interact more frequently. Further, aoudad do not seem to be affected by pneumonia and may have developed resistance mechanisms similar to those seen in domestic sheep and goats which allows them to serve as hosts without being dramatically impacted themselves. The objectives of this study are to explore the ecology, distribution, and frequency of *Mycoplasma* in aoudad in Texas using a DNA sequencing method called multi-locus sequence typing (MLST) and to characterize *Mycoplasma* strain type or species in aoudad and determine if there is a correlation between *Mycoplasma* strain type, geographic location, and aoudad haplogroup. To date, 46 individuals have been typed using the MLST method. Preliminary results have identified three strains of *Mycoplasma* which occur across five geographically separated localities in Texas. In addition, efforts are being developed to detect *Mycoplasma* in fecal samples.



Texas Society of Mammalogists

Newsletter
The 44th Annual Meeting
2026

2026 Guest Speaker

Dr. Michael R. Willig is a Board of Trustees Distinguished Professor of Ecology and Evolutionary Biology at the University of Connecticut and the Founding Executive Director of the Institute of the Environment. He earned his Ph.D. from the University of Pittsburg in 1981 and has held faculty appointments at Loyola University, Texas Tech University, and the University of Connecticut. He has been a Division Director with the National Science Foundation and has received over 60 major research grants. Dr. Willig's research is multidisciplinary, quantitative, and addresses important questions in ecology, biogeography, and conservation biology. His research has an evolutionary perspective, and involves manipulative and observational studies, as well as modeling. He is an excellent field biologist. Although he has published on a wide variety of organisms, a major thrust of his research continues to involve terrestrial mammals, and aspects of community ecology, biodiversity, and biogeography, especially in the tropics.

Patron Membership

Members are encouraged to consider becoming Patrons of the Society by donating $100 (or more) to support the Society's student paper awards. A list of Patron members is published on the website and in the program. Regular Patron membership is achieved with a donation of $100. Members who exceed $100 in donations to the Society's student awards fund will receive a certificate recognizing their total donation level as follows: $125, Ocelot Level; $250, Bobcat Level; $500, Puma Level; $1000, Jaguar Level. Members can upgrade at any time, and all donations are cumulative. There is no time limit or minimum contribution requirement as a member works toward the next level. Donation levels are confidential.

News & Announcements

Students Wanted!

We would like to encourage students to become more actively involved in the society. One of the ways you can do this is to join a committee. Below are the committees that are open for participation. If you are interested in joining a committee, please let us know while you are at the meeting. You also can email TXmammals@gmail.com with the name of the committee(s) you would like to join. We will pass your name along to the committee chair and they will be in touch with you. In addition to committee work, we are looking for volunteers to assist at the meeting every year (e.g., help with registration, etc.). If you are willing to assist at the meeting, please email TXmammals@gmail.com and indicate when you would be available to help and what you would like to do.

Conservation Committee

The role of this Committee is to monitor governmental and other activities that relate to conservation of mammals in Texas; advise officers and membership of the Texas Society of Mammalogists on issues of concern; and respond to the issues via formal resolutions. This Committee is intended to serve as a clearinghouse for information on all aspects of conservation of Texas mammals and to maintain the capacity to respond promptly and effectively in crises.

Ad hoc Auction Committee

The role of this Committee is to request and collect donations, set up and help conduct the live and silent auctions at the meeting, and help collect payments at the end of the auctions. If you are interested in helping, please contact Krysta Demere

Ad hoc Informatics Committee

The role of this Committee is to update and maintain the web and social media presence of the society. TSM currently has Facebook and X (Twitter) accounts.

Website Updates

We continue to work on updating the society website and are seeking requests for information you would like to see included on the site. Please send your suggestions and requests to John Hanson (j.delton.hanson@gmail.com; Editor).

Abilene Christian University

Department of Biology, 1600 Campus Court, Abilene, TX 79699

Tom Lee

Phone: 325-370-4442
Email: leet@acu.edu

Research Interests, Projects, and Grants:
In 2025, I used my Clark Stevens endowed professorship funds to travel to Ecuador with Bob Dowler. We surveyed the Urraca and Utuana Reserves in southern Loja Province on the border with Peru for mammals.

Furthermore, I conducted research in the lab on sequencing DNA and examining the morphology of members of the genus *Thomasomys* this past summer. The study was on *Thomasomys cinnameus* and *Thomasomys hudsoni* and these data were presented at last year's meeting in TSM 2025 by Cindy Cho.

We are continuing the digitization and cataloging of the Abilene Christian Natural History Collection. With students cataloging and photographing a lot of fossils, marine invertebrates and insects.

Undergraduate Students and Their Research:

My student Cindy Cho and I are finishing a study on a better characterization of two species of *Thomasomys* using both morphologically and genetics.

My students Lyndsey Klein, Isabella Ortiz de Camargo and Kailey McHenry conducted a camera trapping survey at Abilene State Park in 2025. This project is the seventh camera trapping year for the Abilene State Park. This study is part of the SNAPSHOT camera-trapping program and Wildlife Insights. Furthermore, we tested Gray Fox abundance between the State Park and the City of Abilene as well. These data will be presented at TSM. Data from the camera trapping of Abilene State Park has been combined with national and international studies and published in Ecology and Diversity and Distributions in 2025.

Angelo State University

Department of Biology, San Angelo, TX 76909

Edson F. Abreu

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Research Interests, Projects, and Grants:
I am a Brazilian mammalogist and an Assistant Professor in the Department of Biology at Angelo State University (ASU), where I also serve as Curator of Mammals at the Angelo State Natural History Collections (ASNHC). My research covers a wide range of topics—from investigations of macroevolutionary patterns and processes in globally distributed taxa to analyses of intraspecific genetic and morphological variation—and it spans a variety of disciplines including molecular phylogenetics, historical biogeography, diversification analysis, comparative morphology, and revisionary taxonomy. I am particularly interested in the evolutionary and ecological processes that generated and maintain the extraordinary biodiversity of the Neotropics. My recent efforts have focused on investigating the diversity, phylogenetic relationships, and evolution of tree squirrels using genomic data obtained from historical and modern specimens.

Current Graduate Students and Their Research:

- **Margaret Daun** – Master's student; Rodent diversity in western Amazonia based on Oxford Nanopore DNA barcoding (Spring 2025–present)
- **Ross Vlcek** – Master's student; Diversity and activity patterns of mammals in central Texas grasslands (Fall 2025–present)

Current Undergraduate Students and Their Research:

- **Aramide Oladiran** – Diversity of small mammals along the Purus River in central Brazilian Amazonia based on fieldwork and DNA barcoding (Undergraduate Research, Fall 2024–present)

Additional Information: I am currently seeking a student to join the Master's Program in Biology at ASU in Fall 2026 to work on an NSF-funded project. The student will conduct research under the project "BRC-BIO Marajó: the origin and evolution of vertebrate diversity in the planet's largest fluvial Island". The student will be fully supported for two years: the first year through the NSF grant and the second year (pending satisfactory performance during the first year) though a Graduate Assistantship provided by the Department of Biology.

Loren K. Ammerman

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Web page: www.angelo.edu/content/profiles/75-loren-k-ammerman

Research Interests, Projects, and Grants:
I am interested in bats and other mammals. I work with students to use molecular data to reconstruct evolutionary relationships of organisms, to investigate genetic diversity, and to understand diet. I also am interested in distribution, community structure, and the ecology of bats, especially in Texas. Most recently I have been monitoring seasonal roost use, movements, and colony size fluctuation of *Leptonycteris nivalis* in Big Bend National Park. See my ResearchGate profile https://www.researchgate.net/profile/Loren-Ammerman for recent publications.

Current Graduate Students and Their Research:

- **Kennedy Berry** – MS thesis student, Bat communities across three west Texas mountain ranges using mobile acoustic surveys (Graduate Assistant, Fall 2023 – present)
- **Kate Bonfield** – MS thesis student, Community structure, reproductive timing, and dietary overlap of bat species at a desert maternity roost (Graduate Assistant, Fall 2025-present)
- **Delaney Oates** – MS thesis student, Molecular diet analysis of *Myotis volans* in the Davis Mountains (Graduate Research Fellow, Fall 2025 -present)

Current Undergraduate Students and Their Research:

- **Daniela Childress** – Genetic variation and phylogeography of *Eumops perotis* (Western Mastiff Bat (Undergraduate Honor's Thesis Research, Fall 2025-present)
- **Lela Faison** – Exploring a nuclear barcode to distinguish *Myotis californicus, M. ciliolabrum,* and *M. leibii*) (Undergraduate Research, Fall 2025-present)

Additional Information: The Angelo State Natural History Collection has over 21,000 mammal specimens and over 35,000 tissue specimens. The collection is searchable via Arctos at https://www.angelo.edu/dept/asnhc/collections.php and on VertNet and GBIF. You can contact me or our Collection Manager, Rose Wilhoyt (rose.wilhoyt@angelo.edu), if you have any questions about the collection.

Robert C. Dowler (Retired)

Phone: 325-486-6639
Email: robert.dowler@angelo.edu

Research Interests, Projects, and Grants:
My research interests in retirement continue to be on spatial ecology of skunks in Texas. I am currently finishing up projects with Clint Perkins and Richard Stevens on the plains spotted skunk (*Spilogale interrupta*) in Texas, as well as assessing the status of hooded skunks (*Mephitis macroura*) in Trans-Pecos Texas. I continue to have interest in all skunk species in Texas, porcupine dermatophytosis, and the conservation biology and systematics of Galapagos endemic rodents.

Graduate Students and Their Research:

- J. Clint Perkins, former M.S. student, is now a Ph.D. student at Texas Tech University working on the spatial ecology of populations of plains spotted skunks at the Katy Prairie. I am co-advisor with Dr. Richard Stevens at TTU.

Baylor University

Department of Biology, Waco, TX 76798

Kenneth T. Wilkins (Retired)

Phone: (254) 709-7211
Email: ken_wilkins@baylor.edu

After 39 years on the faculty at Baylor University, including 24 years in administration, I have retired. We have taken the Oregon Trail to the Pacific Northwest. We now live in Bend, a vibrant community situated in an ecotone spanning the Ponderosa forest of the lower slopes of the Cascade Range to the juniper scrub of the High Desert at the western extent of the Great Basin. The book written by fellow mammalogists BJ Verts and Leslie Carraway is a tremendous guide to landforms, flora and the mammals of Oregon!

Of interest to Texas mammalogists is that the Department of Biology mammal collection has been transferred to a location on the Baylor campus that should ensure its care in perpetuity and its availability to researchers. The collection is now housed in Mayborn Museum, a larger museum complex that incorporates the former Strecker Museum.

A teaching collection remains with the Department of Biology, but the research caliber materials transferred to Mayborn Museum. The research collection comprises c. 2,000 specimens (predominantly skin & skull preparations of rodents and bats) mainly from Texas. The specimens represent vouchers from an array of projects: surveys on Texas Parks & Wildlife properties (Fort Parker State Park, Lake Fairfield State Park, Hill Country State Natural Area), population and community studies on Texas Nature Conservancy properties (Clymer Meadow, Leonhardt

Prairie), and numerous master's theses and doctoral dissertations conducted at these and other locations. There are a few specimens from Mexico, collected in association with teaching and research at Chapala Ecology Station in Jalisco from 1992 through 2001. Inquiries related to the collection should be directed to Ms. Anita Benedict, Collections Manager at Mayborn Museum.

Cameron University

Lawton, OK 73505

Dana N. Lee

Phone: 580-591-8009
Email: dalee@cameron.edu

Research Interests, Projects, and Grants:
I primarily study bats and am interested in all aspects of their ecology, genetics, and evolutionary relationships; although, I use molecular biology tools to study the genetic variation of other wildlife populations. Undergraduate students in my lab are currently working to determine the diet of the ghost-faced bat and the pallid pat using molecular analysis. We are also screening bats for adenoviruses and microplastics.

Centenary College of Louisiana

2911 Centenary Blvd., Shreveport, LA 71104

Scott Chirhart

Phone: 318-869-5209
Email: schirhar@centenary.edu

Research Interests, Projects, and Grants:
Evolutionary Biology, including: Evolutionary/Population Genetics, Vertebrate Speciation and Systematics, Molecular Variation

Houston Museum of Natural Science

Dept. of Vertebrate Zoology, 5555 Herman Park Dr., Houston, TX 77030-1799

Dan Brooks

Phone: 713-639-4776
Email: dbrooks@hmns.org
Web page URL: www.hmns.org/exhibits/curators

Research Interests, Projects, and Grants:
Although I do quite a bit of work with birds, research interests in mammalogy span a variety of topics including community and behavioral ecology, biogeography and taxonomy, harvest patterns, natural history, and conservation. I am particularly interested in Neotropical species in lowland regions east of the South American Andes (especially the Peruvian Amazon, Paraguayan Chaco, and eastern Bolivia). Additional regions of coverage include Texas, Middle America, Sub-Saharan Africa, and more recently Southeast Asia.

Current mammalogy projects:

Exhibits:

- Our division created a 'minimalist' Arctic wildlife diorama for the Extreme Animals Alive exhibit (May 2025 – Sept 2026), which features several species of Arctic mammals.
- Farish Hall of Texas Wildlife was given a minor face lift, repairing broken habitat, removing large out of reach dust blotches, and repositioning several specimens. Additionally, with the help of our Media graphics Department, several culturally-specific "Camera in Use" signs were installed, which seem to be helping to reduce vandalism in this open exhibit.
- The African House bat (*Scotophilus*) kiosk in the Frensley-Graham Hall of African Wildlife was given a face-lift update.

Research:

- The Houston Urban Wildlife Project (HUWP) features a section on urban mammal projects that we're involved in (www.hmns.org/huwp).
- Our division has initiated a long-term project surveying large mammals with camera-traps throughout the Katy prairie (Waller Co.), with hopes of determining status of Eastern Spotted skunk (*Spilogale putorius*) in that region; essentially picking up where the Dowler-Stevens teams left off.

Publications:

- Tim McSweeny and I published a manuscript with Buffalo Bayou Partnership inventorying mammals through film bytes of camera traps, with accounts on specific natural history information: https://blog.hmns.org/wp-content/uploads/2025/08/BuffaloBayou_Eprint.pdf.

- Tim McSweeny and I are working on a manuscript regarding county records of mammals in Texas.
- Tim McSweeny is also taking the lead on getting all of our collection records on-line for public access. As most of you know this is very much a 'Hurry up and wait!' process.

Presentations:

- Tim McSweeny gave a well-received presentation on the Buffalo Bayou Mammal study at the Texas Biodiversity Symposium 2025 at Rice University (through Rice Institute).
- A presentation on the Houston Urban Wildlife Project was given at the 'Pint-sized Science' series. It was heartening that citizens of Houston had so much interest in this topic, a room had to be added at the last minute to accommodate the standing room only attendees.

Additional Information: The primary driver of the Houston Museum of Natural Science is Education, including outreach. We educate every 4th and 7th grader in the Houston Independent School District annually (approx. 700,000 students/yr), have nearly 2.5 million individuals come through the doors per year. We are also the 4th highest attended museum in the country (surpassed only by Smithsonian, AMNH, and the MOMA) and are the highest attended US museum west of the Mississippi river. Every year I tour college-level classes through our permanent wildlife exhibit halls. If you have any interest in coming for a visit just touch base directly!

Interquest Environmental Consultants

Ray E. Willis

Phone: 806-787-0283
Email: raywillis.interquest@gmail.com

InterQuest
Environmental Consultants

Research Interests, Projects, and Grants:
Private Wildlife Contracts and Surveys. After spending thirteen years in academia, I decided to switch my focus to private wildlife contracts with an emphasis on surveys for business and large ranches. Additionally, I provide solutions for urban wildlife problems and land management for newly developed rural neighborhoods. I am expecting to expand in the future and will need qualified vertebrate biologists for potential subcontracting opportunities.

Midwestern State University

Department of Biology, Wichita Falls, Texas 76308

Joel G. Brant

Phone: 940-397-4408
Email: joel.brant@msutexas.edu

Research Interests, Projects, and Grants:
My research interests are primarily concerned with the natural history of mammals, particularly in Texas and the Chihuahuan Desert. My current research program focuses on the natural history & ecology of mammals in the Southern Rolling Plains and Chihuahuan Desert. Having recently moved to Midwestern State University, I am still setting up my research projects. I plan to continue exploring the mammal populations in North-Central Texas. MSU operates the Dalquest Desert Research Station, adjacent to Big Bend Ranch State Park, in the Chihuahuan Desert and several of my planned project focus on this resource. Midwestern State University has a long history of training mammalogists in Texas. I hope to continue the legacy.

Purdue University

West Lafayette, IN

J. Andrew DeWoody

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Email: dewoody@purdue.edu
Web page: https://web.ics.purdue.edu/~dewoody/DeWoody/wordpress/

Research Interests, Projects, and Grants:
Evolutionary genetics and genomics; molecular ecology and evolution; natural history; conservation biology; wildlife and fisheries management. Our research occurs at the intersection of ecology, evolution, conservation, and genomics. Ongoing or recent projects have centered on the distribution of genomic diversity in threatened or endangered (T&E) fishes, herps, birds, and a variety of mammals including marsupials, rodents, and cetaceans.

Graduate Students and Their Research:
My graduate students and postdocs work on a variety of questions in ecology and evolution, including important conservation issues related to T&E species (e.g., gray whale population structure). Students matriculate through either the Biology program or a Wildlife program.

Undergraduate Students and Their Research:
My undergraduates are all mentored by graduate students or postdocs. Most start as "assistants," but the best students develop their own research projects.

Additional Information:
I am always looking for bright, motivated students so please contact me if you are interested in an immersive experience at a top-notch graduate school. See my webpage for more details.

Tarleton State University

Department of Biological Sciences, Stephenville, TX 76402

Jenna R. Grimshaw

Phone: 254-968-9158
Email: jgrimshaw@tarleton.edu

Research Interests, Projects, and Grants:
My main research interest is analyzing transposable elements (TEs) in mammalian genomes from a macroecological perspective. As TEs vary in diversity and distribution within and among genomes, TEs may behave similarly as species in ecological communities. Therefore, common macroecological analyses such as species abundance distributions and co-occurrence analyses may provide insights on how TEs interact with each other and their genomic environment. My other research interest is in bat population genetics, especially *Myotis septentrionalis*.

Recent Publications:
Grimshaw, JR., Donner, D., Perry, R., Ford, W.M., Silvis, A., Garcia, C.J., Stevens, R.D., and Ray, D.A. (2024). Disentangling genetic diversity of *Myotis septentrionalis*: population structure, demographic history, and effective population size. Journal of Mammalogy, 105(4): 854-864.

Russell S. Pfau

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Web page: faculty.tarleton.edu/pfau/

Research Interests, Projects, and Grants:
My main research focus is population and evolutionary genetics—often with a focus on conservation biology. Small mammals have been the primary subject of my research, but my taxonomic coverage has recently included spiders, crustaceans, fish, plants, frogs, insects. Ongoing projects include:

- Documentation and assessment of contact zones between *Geomys bursarius* and *G. breviceps* in southern Oklahoma and northern Texas

- Population genetics and soil-type correlations of *Geomys texensis*.
- Distribution of shrews (*Blarina*) in the southern Great Plains region using mtDNA sequencing (for identification) and morphometric analysis to examine geographical patterns of variation
- Species status of two bumblebees in Texas
- Phylogenetics and species discovery among Texas anemones (windflowers)
- Conservation genetics of the crawfish frog
- Whether two bumblebee species are reproductively isolated
- Description of new species of wolf spiders

Recent publications:

- Beckham, J. L., Johnson, J. A., & Pfau, R. S. (2024). Molecular data support *Bombus sonorus* and *Bombus pensylvanicus* (Hymenoptera, Apidae) as distinct species. Journal of Hymenoptera Research, *97*, 895-914.
- Pfau, R. S., Kozora, A. N., Gatica-Colima, A. B., & Sudman, P. D. (2023). Population genetic structure of a Chihuahuan Desert endemic mammal, the desert pocket gopher, *Geomys arenarius*. Ecology and Evolution, 13(10), e10576.

Philip D. Sudman (Retired)

Phone: 254-967-5220 (cell)
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Research Interests, Projects, and Grants:

After retiring in 2024, I have been busy chasing our dogs, golfing, fishing, camping and brewing beer. I remain active as Secretary-Treasurer and Trustee of the American Society of Mammalogists, and I hope to spend time over the next several months compiling data from past research and submitting a few mammal-related notes. I am also hopeful that I will be able to continue working with Tarleton's study abroad program – the past three summers I have spent several weeks with students trapping small mammals in the central Kalahari of Botswana (elephant shrews, gerbils, fat mice, pouched mice and rock rats to name a few). It has been a great way to end my career, and I am always game to learn new things!

Texas A&M University-College Station

Department of Ecology and Conservation Biology, Biodiversity Research and Teaching Collections, Texas A&M University, College Station, TX 77843

Thomas E. Lacher, Jr. (Professor Emeritus)

Phone: 979-255-6131
Email: tlacher@tamu.edu
Web page (*not recently updated*):
https://biodiversitylabtamu.wordpress.com/

Research Interests, Projects, and Grants:
Ecology and conservation of macaw species in Peru; livestock, Mammalian biodiversity, and local communities in Huascaran National Park in Peru; Transboundary conservation of bats and agaves in the Texas and northern Mexico; Acoustic biology of nectar-feeding bats in northern Mexico; Models of white-nose transmission in bats in Texas and Mexico; Payment for ecosystem services and mammalian conservation on a landscape matrix in Costa Rica; Spatial ecology of sloths in Costa Rica; Fragmentation and mammalian biodiversity in Costa Rica; Population and community ecology of bats in the southern Brazilian Atlantic Forest; Cacao plantations and marmoset ecology in the Brazilian Atlantic Forest; Climate change and land-use impacts on amphibians in Colombia; Assessment and monitoring of globally threatened species of Rodentia, Eulipotyphla, and Scandentia.

Graduate Students and Their Research:

- Jessica Gilbert, Ph.D. The impacts and dynamics of the socio-ecological system of livestock grazing on biodiversity in the Huascaran Biosphere Reserve. Major Advisor.

Additional Information:

- Recipient of the Aldo Leopold Award from the American Society of Mammalogists
- Co-Chair IUCN Small Mammal Specialist Group
- Member, IUCN Climate Change Specialist Group
- Associate Conservation Scientist, Re:wild, Austin, Texas
- Co-Editor, Volumes 6 and 7, Handbook of the Mammals of the World and Volumes 1 and 2 of the Illustrated Checklist of the Mammals of the World

Jessica Light

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Web page: https://lightjessica.weebly.com/

Research Interests, Projects, and Grants:
I am an evolutionary biologist with a focus on phylogenetic, population genetic, and ecological interactions between parasites and their hosts. To address these broad research interests, I employ a variety of tools such as molecular (multiple genes, population genetic loci, or genomic data) and morphological data from field-collected and museum specimens. My lab is recently or currently funded by the National Science Foundation on three separate projects: 1) Mid-career OPUS to study *Peromyscus* systematics; 2) Collaborative research exploring sucking louse phylogenetics and genomic and morphological selection; and 3) Thematic Collections Network to digitize mammal trait data from western North America.

Graduate Students and Their Research:

- Ayomiposi Abraham is a 4th-year Ph.D. student interested in host-parasite associations, particularly those between pocket gophers and their chewing lice.
- Oluwaseun David Ajileye is a 4th-year Ph.D. student interested in disease ecology, and tick and filarial worm associations.
- Brady Craft is a 4th-year M.S. student pursuing cranial morphology evolution in *Peromyscus* for her thesis research.
- Haley Ellis is a 4th-year M.S. student pursuing limb morphology evolution in *Peromyscus* for her thesis research.
- Ali Lira is a 5th-year Ph.D. student interested in Neotropical bat flies, bats, and host-parasite coevolution.
- Grace Martindale is a 2nd-year M.S. student interested in *Peromyscus* external trait morphological evolution.

Undergraduate Researchers:
Undergraduate researchers routinely assist with ongoing projects in the lab, as well as conduct their own projects. Numbers of students for the past 3 semesters are as follows: 7 during Summer 2025, 11 during Fall 2025, and 8 for Spring 2026.

Staff and Technicians:

- Heather Prestridge is the lead collections manager of mammals at the Biodiversity Research and Teaching Collections
- Danielle Dillard is investigating interactions between the giant kangaroo rat and a trombiculid mite. She also is interested in porcupine range expansions, lice parasitizing pocket gophers, and several other projects ongoing in the Light lab.

Biodiversity Research and Teaching Collections:
The mammal division in the Biodiversity Research and Teaching Collections (http://brtc.tamu.edu) currently has over 68,500 specimens. Our data are available online through VertNet, iDigBio, and GBIF. The collections are currently staffed by Heather Prestridge, with the help of several volunteers and research interns.

Texas A&M University-Corpus Christi

Department Life Sciences, Texas A&M University- Corpus Christi, Corpus Christi, TX 78412

Dara Orbach

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Research Interests and Projects:
My research interests are the functional anatomy and behavioral ecology of marine mammals. My lab explores the evolutionary drivers of diverse genital morphology and coevolution between the sexes, health of dolphins, and population biology of local dolphins. My lab is particularly interested in how anthropogenic disturbances (e.g., vessel traffic, fishing interactions, contaminants) alter dolphin behavior, habitat use, and physiology. We use a variety of field-based techniques (e.g., photo-identification, theodolite tracking, unoccupied aerial systems, remote biopsy, passive acoustic monitoring) and laboratory tools (computer-assisted sperm analysis, geometric morphometrics, mass spectrometry) to advance science.

Postdoc Research:

- Lorenzo Fiori, Ph.D. Microbiome of marine mammals; body condition of bottlenose dolphins in different foraging contexts.

Graduate Student Research:

- Makayla Guinn, Ph.D. student. Metabolomics, contaminants, and isotopes in bottlenose dolphins

Jonah Smith, M.S. student. Dolphin interactions with fisheries in the Texas Coastal Bend

Undergraduate Student Research:

- Madison Hallmark, Honors student. Heavy metal contaminants in bottlenose dolphins
- Soleil Delorge, LSAMP student. Swim tourism impacts on common dolphin swimming
- Taylor Rausch, Honors student. Population estimates, residence, and site fidelity of bottlenose dolphins in South Texas
- Aiden Adapathya, Honors student. Social network analyses of bottlenose dolphins in South Texas
- Logan Younger, Honors student. Dolphin preferences among swimmers during swim-with-dolphin interactions

Additional Information:

- I have supervised > 140 undergraduate students from groups historically underrepresented in STEM disciplines and serve as a faculty mentor to four professional organizations
- I do extensive public outreach that highlights the historic gender bias in the field of genital evolution

Texas A&M University-Kingsville

Feline Research Program, Caesar Kleberg Wildlife Research Institute

Michael Tewes

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Email: michael.tewes@tamuk.edu
Web page: https://www.wild-cat-team.com/
https://www.ckwri.tamuk.edu/research-programs/feline-research-program

Research Interests, Projects, and Grants:
Small cats – ocelot, bobcat, jaguarundi, mountain lion, margay, clouded leopard, leopard cat, marbled cat, fishing cat
Field biology, population ecology, spatial ecology, behavior, conservation, genomics.

Personnel and Their Research:

- Dr. Emma Brookover- Population genomics of bobcat and ocelot (collaboration with TxDOT)
- Rupesh Maharjan, MS, Doctoral Student- Spatial, temporal, and landscape ecology of bobcats and other wildlife, ecology of vehicle collisions, road ecology (collaboration with TxDOT)
- Sean Kiernan, master's student- Impacts of roads on bobcat and ocelot movements, targeted camera sampling for wild cat monitoring (collaboration with TxDOT)
- Jack Towson, master's student- Characterizing the genomic link to road-crossing success in ocelot and bobcat, patterns of population structure and gene flow in fragmented environments (collaboration with TxDOT)
- Spencer Ferguson, Masters Student and Research Technician- Wild cat behavior, bobcat and canid intraguild competition at wildlife crossings in South Texas (collaboration with TxDOT)
- Two Research Associates-Elizabeth Grunwald and Terry Hanzak, three Research Technicians-Tom Langschied, Spencer Ferguson, and Ed Underbrink, and seven Undergraduate Research Assistants-Zachary Chairez, Paige Dorsey, Joelysa Garcia, Elena Gonzales, Denay Hernandez, Emma McMillian, and Hunter Vasquez, working on various small wild cat research projects

Texas Parks and Wildlife Department

District 1 Diversity Biologist, Alpine, TX 79830

Krysta D. Demere
Phone: 432-244-9945
Email: Krysta.demere@tpwd.texas.gov

Research Interests, Projects, and Grants:
As a Diversity Biologist for Texas Parks and Wildlife, I supervise non-game research projects, provide technical guidance to private landowners regarding management and effective conservation actions for rare and threatened species, conduct outreach programs for landowners and the public, and conduct surveys for nongame species across the ~25 million acres that encompass the 16 counties of the Trans-Pecos Wildlife District. My efforts within the discipline of mammalogy for the past year have primarily focused on compiling a comprehensive database for historical and recent black bear observations, establishing a genetic tissue collection for black bear samples retrieved within west Texas, monitoring overwintering western bat species for the presence of Pd and potential development of white-nose syndrome, and investigating disease outbreaks in local lagomorphs. I have had the honor of serving as the official artist for TSM since 2018 and look forward to representing the society each year.

Texas State University

Department of Biology, San Marcos, TX 78666

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http://www.researchgate.net/profile/Ivan_Castro-Arellano

Research Interests, Projects, and Grants:
I use my background and training as an ecologist to address questions to understand the ecology of zoonotic diseases and invasive species. Because mammals are natural reservoirs for many zoonotic diseases, most of my work has been devoted to this taxonomic group, especially rodents and bats. Beyond my interest in disease ecology, I also have done research on theoretical aspects of community ecology, specifically on the analysis of assemblage-wide temporal niche overlap and elements of metacommunity structure. I address these questions using a variety of approaches that include modelling, null models, and analyses of both published and empirical data generated at my lab. Although my research interests are wide, they are intertwined and my

goal is to integrate the study of community level dynamics in mammalian hosts to understand the dynamics of pathogen transmission.

Current Projects:
Although I have worked on multiple research topics and new ones develop based on new collaborations, I currently have three main lines of research at my lab:

1) Ecology and evolution of activity patterns. Using publicly available large databases and fieldwork, my lab addresses multiple questions related to the ecological determinants of activity patterns and how this information can be used to understand the structure of mammalian assemblages worldwide. Another topic within this line is how anthropogenic changes can affect mammalian activity patterns and the implications for the ecology of these species.
2) Host-vector ecology of *Ornithodoros turicata* in Central Texas. The ecology of soft ticks is a little known despite these tick species being vectors of zoonotic pathogens. At my lab, we are trying to ascertain which wild mammals serve the role of reservoirs for the pathogens vectored by these ticks and what role these have to disperse ticks among sites.
3) Ecology of TX Kangaroo rat. With funding from TPWD and USFWS and in collaboration with Dr. Joe Veech (Texas State University), we have worked on different questions related to the ecology and conservation of this rodent species endemic to TX. This species is currently being considered for ESA listing, and the generation of new knowledge is focused on the management for the conservation of this species.

Graduate Students and Their Research:
Current and recent graduate students

- Stoneham, Margaret (M.Sc. 2022). Temporal overlap among common mesocarnivores throughout the neotropics.
- Bergmanson, Stephanie (M.Sc. 2022). Comparison of Tapir species activity patterns across multiple sites in the neotropics.
- Reagan, Cassidy (M.Sc.). Elements of Metacommunity Structure for Bat Assemblages Across Elevational Gradients Worldwide.
- Ramirez, Rosa (M.Sc.). Integrating Host Community Ecology into the Disease Ecology of a Tick-Borne Relapsing Fever Vector.

I AM CURRENTLY SEEKING WELL QUALIFIED MS AND PhD STUDENTS THAT ARE INTERESTED IN THE TOPICS WE DO RESEARCH AT MY LAB. PLEASE CONTACT ME AT MY EMAIL IF INTERESTED.

Select past students

- Matt Milholland (PhD. 2017). Matt's dissertation work was centered around the ecological correlates for hantavirus seroprevalence at different spatial scales.
- Sara Weaver (PhD. 2019). Sara worked on the effects wind energy production has on populations of bats at wind farm in south Texas.
- Madison Torres (M.Sc.). Madison's thesis was on the home range dynamics of the invasive Small Asian Mongoose (*Herpestes aeropunctatus*) in Puerto Rico.

- Kathryn Michelle Benavidez (M.Sc. 2016). Michelle's research was also in Puerto Rico and centered on the potential role of mongooses and commensal rodents as reservoirs of *Leptospira*, a zoonotic pathogen that has human health concern.
- Bradford Westrich (M.Sc.). Brad's work was related to a NIH-funded grant centered about the population genetic dynamics and vector ecology of *Ixodes scapularis*. His thesis centered on the role of small and meso-mammals as hosts for this tick in eastern Texas.

Leila Siciliano-Martina

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Webpage: https://leilamartina.weebly.com/

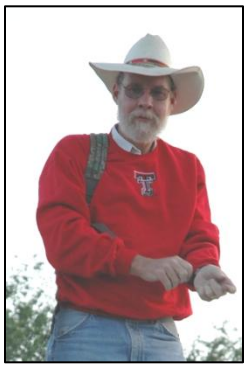
Research Interests, Projects:
My lab is focused on the relationship between animal traits and environmental conditions, particularly the ways in which human-modified systems (e.g., captivity, urbanization) can influence organismal performance and phenotype. We explore functional traits (related to dietary, locomotor, physiological, and behavioral function) at the population and community-level to understand baseline trait-environment relationships as well as the ways in which traits can be modified by disturbances, and what this can tell us about species ecology, evolution, and conservation. We assess these topics using a combination of morphological size and shape analyses (e.g., traditional and geometric morphometric techniques), spatial analyses, and ecological modeling.

Graduate Students and their research:

- **Alyssa Arguijo** – MS thesis student – Spring 2024 to present – Morphological differentiation of red wolves (*Canis rufus*) in captivity.
- **Scott Spencer** – MS thesis student – Fall 2025 to present – Captive Mexican gray wolf forelimb bone density and locomotor stereotypies.
- **Kennedy Wood** – MS thesis student – Fall 2025 to present – Forelimb differentiation and bone density in kangaroo rat species.
- **Sarah Klyn** – MS thesis student – Spring 2026 to present – Growth rates and reproductive seasonality of invasive suckermouth armored catfish.
- **Matt Bushell** – Ph.D. student – Fall 2024 to present – Evolution of hypercarnivorous trait morphology in carnivorans.

Texas Tech University

Department of Biological Sciences, and Natural Science Research Laboratory, Museum of Texas Tech University, Lubbock, TX 79409



Robert D. Bradley

Phone: 806-834-1303
Email: robert.bradley@ttu.edu
Professor Emeritus of Biological Sciences,
Director Emeritus of the Natural Science Research Laboratory,
Curator Emeritus of Mammals, and
Special Assistant to the President, Texas Tech University, Webpage:
https://www.depts.ttu.edu/biology/people/Faculty/Bradley/

Research Interests, Projects, and Grants:

Although I recently retired, I am continuing my research interests in: systematic relationships, molecular evolution, genomics, and natural history of mammals, particularly in the cricetid and geomyid rodents; determining the genetic basis for adaptation in *Peromyscus*; examination of hybrid zones between genetically distinct taxa; understanding isolating mechanisms and the dynamics of genetic introgression; exploring the utility and application of the Genetic Species Concept; examination of the origin and evolution of rodent-borne viruses, especially in the use of rodent phylogenies and genetic structure to predict the transmission and evolution of viruses; various wildlife diseases such as chronic waste disease in deer, pneumonia in bighorn sheep, modeling predictions associated with epidemiology and the impacts of climate change; diets, genetics, and conservation of Texas Black Bears and Mt. Lions, and growth and utilization of natural history collections, especially those pertaining to mammals.

Current Projects:

- Systematics of the genus *Peromyscus*
- Use of genomic methods to investigate speciation and adaptation in *Peromyscus*
- Effects of the zonadhesin gene in speciation of mammals
- Hybridization between white-tailed and mule deer
- Detection methods of Chronic Wasting Disease in cervids
- Genetics of transplanted populations of bighorn sheep in Texas
- Phylogenetic relationships of Neotomine and Reithrodontomyine rodents
- Systematic and genome studies of the genus *Cratogeomys*, *Geomys*, and *Thomomys*
- Ecology of hanta- and arenaviruses in the southwestern US and Mexico
- Morphology, landscape genomics and effective population size of the Palo Duro Mouse, *Peromyscus truei comanche*
- NSF funded project “A Partnership to Facilitate Scientific Inquiry into the Vast Functional Trait Diversity of Phyllostomid Bats” (Richard Stevens – project PI)
- Use of next-gen methods for detecting zoonoses
- Detection of novel viruses in *Sylvilagus* using metagenomic methods
- Detection of pneumonia in bighorn and aoudad in Texas

- Illustrated key to the Mammals of Texas (David J. Schmidly, Lisa Bradley, Robert Dowler, Jim Goetze, Richard Manning, Frank Yancey, and Katelyn Albrecht Co-PIs)
- Detection of prion disease genes across Mammalia

Graduate Students and Their Research:

- Joanna Bateman (PhD candidate) is in her 8th year and is using genomic methods to determine speciation and evolutionary processes in heteromyid rodents.
- Katelyn Albrecht (MS student – but transitioning to a PhD student) is in her 4th year and is co-advised by Dr. Richard Stevens. Katelyn is using 3D scans of bats to learn more about wing variation in Phyllostomids.
- Sufia Akter Neha (PhD student) is in her 4th year. Her research project will involve microbiome analyses of bear and mountain lions.
- Emily Schmalzried (MS student) is in her 3nd year. Her thesis will involve next-gen methods for detecting zoonoses.
- Brendan Amman (MS student) is in his 2nd year.
- Jacob Machett (MS student) is in his 1st year.

Graduated Students:

Macy Krishnamoorthy, co-chaired by Dr. Richard Stevens, finished her PhD this year. Macy examined bat feeding and pollination impacts on baobab trees, and other bat questions. Macy is a Research Associate at the North Carolina Museum of Natural Sciences, Research and Collections, Mammal Unit, Raleigh, NC 27601.

Undergraduate Students and Their Research:

- Last year, 1 undergraduate student worked in the research lab.

Of interest to TSM members

- In 2025, a comprehensive list of type localities for Texas Mammals was published: Schmidly, David J., and Robert D. Bradley. 2025. Type localities of Texas' native terrestrial mammals with comments on the taxonomic status and distribution of species and subspecies. Special Publications, Museum of Texas Tech University 82:1-46.
- In the Summer of 2024, the updated checklist for Texas Mammals was published. Schmidly, David J., Robert D. Bradley, Franklin D. Yancey, II, and Lisa C. Bradley. Comprehensive Annotated Checklist of Recent Land and Marine Mammals of Texas, 2024, with Comments on their Taxonomic and Conservation Status. Special Publications, Museum of Texas Tech University 80:1-76.
- In the Summer of 2023, a catalog of Texas vertebrates was published. Schmidly, David J., Bradley, Robert D., Lisa C. Bradley, and Franklin D. Yancey II (editors). Taxonomic catalogs for the recent terrestrial vertebrates (species and subspecies) described from Texas. 2023. Special Publications, Museum of Texas Tech University 77:iii+1-385.
- In the Summer of 2022, *Texas Natural History in the Twenty-first Century*, by David J. Schmidly, Robert D. Bradley, and Lisa C. Bradley was published by Texas Tech University Press. This book provides an updated synopsis of Texas natural history. In this version, an effort was made to include information for amphibians, reptiles, and birds as obtained by members of the Bureau of Biological Survey. In addition, the information for mammals was updated and expanded.

- In the Fall of 2019, the Memorial Volume for the Dr. Robert J. Baker was completed and provides a synthesis of the career of one of the most ardent supporters of TSM. It is available on the NSRL website and is cited as follows: Bradley, Robert D., Hugh H. Genoways, David J. Schmidly, and Lisa C. Bradley. 2019. Overture. Pp. v-ix in From field to laboratory: A memorial volume in honor of Robert J. Baker (R. D. Bradley, H. H. Genoways, D. J. Schmidly, and L. C. Bradley, eds.). Special Publications, Museum of Texas Tech University 71:xi+1-911.
- In 2019, Dr. Robert Dowler and I were invited to write a summary of North American Mammalogical Research for the Centennial Issue of the *Journal of Mammalogy*. This manuscript (see below) provides useful information for students and faculty who are interested in the history of mammalian research methods. Bradley, Robert D., and Robert C. Dowler. 2019. A century of mammal research: changes in research paradigms and emphases. Journal of Mammalogy, Centennial Issue 100:719-732.
- In 2017, David Schmidly led an effort to publish a timeline of important events in North American Mammalogy; this effort resulted in the manuscript (see below) that provides useful information for students (think qualifying exams), faculty, and historians. Schmidly, David J., Robert D. Bradley, Lisa C. Bradley, and Richard D. Stevens. 2017. A timeline of significant events in the development of North American mammalogy. Special Publications, Museum of Texas Tech University, 66:1-37.

Caleb D. Phillips

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Research Interests, Projects, and Grants:
The Phillips laboratory studies metagenomes and genomes and their interaction.

Graduate Students and Their Research:

- Khalid Omeir (PhD student): Microbiome-transcriptome-wide association of bacteria in chronic wounds
- Jacob Ancira (PhD student): Structural equation modeling to predict wound healing time based on wound microbial composition
- Sufia Akter Neha (PhD student, co-advised with Robert Bradley): Microbiomes of black bears and other mammals.

Additional Information:
My teaching responsibilities include Bioinformatics I and Bioinformatics II. I am also Curator of Genetic Resources, and Interim Assistant Director at the Natural Science Research Laboratory.

Richard D. Stevens

Department of Natural Resources Management, Lubbock TX 79409
Phone: 806-834-6843
Email: richard.stevens@ttu.edu
Web page URL: https://richardstevens29.wixsite.com/my-site

Research Interests, Projects, and Grants:

- Patterns of biodiversity of New World bats.
- Conservation of Atlantic Forest bat communities.
- Metacommunity structure of rodents of the Mojave Desert.
- Dispersal and metapopulation dynamics of Texas Kangaroo rats.
- Use of Highway Structures by Bats in the Trans-Pecos and East Texas.
- Trans-Pecos bat community structure

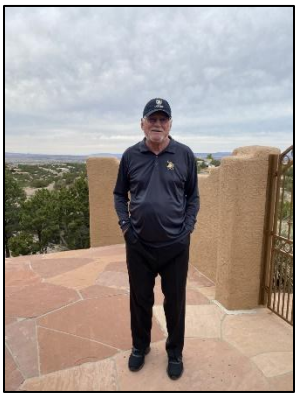
Graduate Students and Their Research:

- Garret Langlois was a Ph.D. student working on the roosting ecology and behavioral network structure of great fruit-eating bats (*Artibeus lituratus*) in Atlantic Forest of Paraguay. Garret has graduated and currently works for the Lubbock Arts & Intersections Research (LAIR) group.
- John Stuhler—John is a Ph.D. student that completed his M.S. at the University of Wisconsin. He is interested in the ecology/conservation biology of Texas kangaroo rats and is conducting an intensive study of habitat preferences. He is also interested in large-scale diversity patterns in heteromyid rodents. He is currently the Collections Manager of Mammals at the University of Wisconsin-Madison Museum of Zoology.
- Jenna Grimshaw is a Ph.D. student co-advised by David Ray and me. She earned an M.S. at Tarleton State University studying patterns of phylogenetic diversity of Mexican bats. Her current research is to identify patterns of genetic structure in three species of critically-imperiled Louisiana bats: *Myotis austroriparius*, *M. septentrionalis*, and *Eptesicus fuscus*. More specifically, she aims to determine if each of these three species comprise a single population or multiple genetic subpopulations with little gene flow. She is also interested in the distribution of transposable elements among mammalian genomes from a genomic ecological perspective. She is currently a Visiting Instructor at Tarleton State University.
- Holly Wilson—Holly is a Ph.D. student earned her M.S. from Fort Hays State University under Elmer Birney. She is interested in how bats use highway structures as day-roosts in the Trans-Pecos of Texas.
- Clint Perkins—Clint is a Ph.D. student who recently earned his M.S. from Angelo State University under Bob Dowler. His project revolves around population and spatial ecology of the plains spotted skunk, *Spilogale putorius interrupta*.
- Macy Madden—Macy is a Ph.D. student co-advised by Robert Bradley and me. She is interested in plant-pollinator interactions between baobab trees and *Rousettus aegyptiacus* and *Epomophorus* species in South Africa and Kenya.
- Angela Alviz—Angela is a Ph.D. student who received her M.S. in Biology from the Pontificia Universidad Javeriana. Angela is interested in Tapir metapopulation dynamics in Colombia.

- Emma Sanchez was recruited into the lab to do her M.S. on use of culverts as day roosts by bats in east Texas. She graduated and is currently working for the Texas A&M Natural Resources Institute
- Amanda Newman joined the lab as a M.S. stuent last year after completing her B.S. at TTU. She is interested in how bats use highway right-of-ways as habitat.
- Jayme Czap also joined the lab last year after completing her B.S. at TTU and is working on her M.S. She is interested in how bats select bridges as day roosts in east Texas.
- Manuel Quispe Lopez is from Peru and just started in the lab. He will be working on bat community structure in the Trans-Pecos.

Texas Tech University/University of New Mexico

60 Homesteads Rd., Placitas, New Mexico 8704



David J. Schmidly

Retired President and Professor Emeritus
Phone: 505-288-9722 (cell)
Email: djschmidly@gmail.com

Research Interests: Natural History, Systematics, and Conservation of Texas Mammals

Projects: In 2025 I joined with colleague Robert D. Bradley to publish "*Type Localities of Texas' Native Terrestrial Mammals with Comments on the Taxonomic Status and Distribution of Species and Subspecies"* as Special Publication Number 82 of the Museum of Texas Tech University. This is the first comprehensive account of the type localities for all 148 native terrestrial species and their subspecies to be published. The various accounts include a discussion of recent taxonomic changes to species and subspecies as well as their geographic distribution within the state.

Two publications planned for 2025 (*"William Blaney Richardson (1868-1927): Natural History Explorer and Specimen Collector in Latin America,"* and species accounts of the species in the *Peromyscus boylii* species complex for a new book *"Handbook of the Mammals of Middle and South America: Rodentia—Cricetidae"*) have not yet appeared but should be published in 2026. Also, my colleague David Marshall and I have completed a book length manuscript, "*Gringo Naturalists: Photographs from the Expeditions of E. W. Nelson and E. A. Goldman in the Early 20th Century,"* that will be submitted to an academic press in 2026. Finally, my colleagues Robert Bradley and Nicte Oronez-Garza and I will complete a taxonomic monograph of all the taxa (species and subspecies) in the *Peromyscus boylii* species group, and I will continue publishing with Robert and his students.

My website www.davidschmidlyphd.com continues to highlight the books and publications I have produced over the years as well as other aspects of my career.

Aside from this work, I will continue my cancer treatments. Janet and I will be travelling to Spain in May-June to see our son and his family, as well as making back and forth trips to our home in Cholula, Puebla, Mexico.

Trinity University

Department of Biology, One Trinity Place, San Antonio, TX 78212

David O. Ribble

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Web page: www.trinity.edu/

Research Interests, Projects, and Grants:
I am interested in the evolutionary ecology of small mammals, including *Peromyscus* and elephant-shrews. My research in recent years has ranged from studies of social organization to mating behavior to thermal ecology. I have recently been leading a course in Costa Rica where we are monitoring the elevational distribution of small mammals on the Pacific Slope from Monteverde to the coast. I now serve as Dean of the newly established D. R. Semmes School of Science at Trinity. While my own research agenda has diminished, I am enjoying supporting and promoting others at Trinity University.

University of Central Oklahoma

Department of Biology, Center for Wildlife Forensic Science and Conservation Studies, Edmond, OK 73034

Michelle L. Haynie

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Research Interests, Projects, and Grants:
My research focuses on mammalian evolution biology, primarily in population genetics and molecular systematics. I am interested in using genetic markers to address conservation and evolutionary questions, with most of my research focusing on comparative hybrid zone studies and the identification of cryptic species. I also am interested in factors that impact how small populations and communities change over time.

My current projects include:

- An evaluation of bobcat genetic diversity and structure in Oklahoma

- A long-term small mammal mark-recapture survey at UCO's Selman Living Lab to identify factors that impact population and community persistence (with Francisca Mendez-Harclerode, Gloria Caddell, Chad King, Sean Laverty, Richard Dolman, and Chris Goodchild)
- A survey of mammals at an old oilfield site and comparison of species diversity and richness between this site and a paired site in Cushing, Oklahoma
- A survey of mammals at Lake Arcadia, Edmond, Oklahoma, to determine the impacts of cedar removal on species diversity

Graduate Students and Their Research:

- Claire Wiley – Hantavirus survey of small mammals at Selman Living Lab; genetic identification compared to field identification of small mammals at Selman Living Lab
- Nadiya Cavallo - A comparison of species richness, species diversity, and trap success on disturbed lands in Cushing, Oklahoma

Undergraduate Students and Their Research:

- Kayli Newport – Assisting Claire with genetic species identification of Selman rodents, focusing on *Peromyscus*
- Savannah Glidewell – Assisting Claire with genetic species identification of Selman rodents (graduated in December)
- Liliana Ballon – Identification of internal and external parasites from small mammals at Selman Living Lab; identification of microplastics in rodent fecal pellets
- Joshua Walker – Identification of internal and external parasites from small mammals at Selman Living Lab; identification of microplastics in rodent fecal pellets

Additional Information:

- After many years, Mammals of Oklahoma, Second Edition is finally complete! It became available for purchase in July 2024. I am now the Interim Chair of the UCO Biology Department.

University of Houston—Downtown

Department of Natural Sciences, 1 Main Street, Houston, TX 77002

Amy Baird

Phone: 713-222-5301
Email: BairdA@uhd.edu
Web page: https://bairdlab.wordpress.com/

Research Interests, Projects, and Grants:
My research interests include molecular phylogenetics, phylogeography, and speciation of mammals. Current projects include molecular phylogenetics and taxonomy of lasiurine bats, including phylogeography and genomics of the Hawaiian Hoary bat; population genetics of bowhead whales (grant funded through the North Slope Borough); and genetic

identification of bowhead whale parasites. I am partially funded by a grant from the North Slope Borough (PI) and an Organized Research and Creative Activities grant through UHD (PI)

Undergraduate Students and Their Research:
Junior Tankoh, Alexandra Hernandez, and Tamsin Ward are examining population genetics of bowhead whales using mtDNA sequences and SNPs. Tamsin is also continuing a study of genetic identification of whale parasites.

University of Mary Hardin-Baylor

Department of Biology, Box 8432, UMHB Station, Belton, TX 76513

Cathleen Early

Phone: 254-295-5041
Email: cearly@umhb.edu
Web page: https://www.umhb.edu/resources/hr/directory/cathleen-early#1845

Research Interests and Projects:
I am a field biologist primarily interested in behavioral ecology. I am also interested in STEM education research, especially how to improve curriculum to be more effective for first generation students.

While I am not currently conducting research or mentoring research students, I support student research by helping judge student presentations at conferences I attend. I bring undergraduate students to the Texas Academy of Science meeting every year, including students who are not presenting that year.

Additional Information:
I am passionate about making science fun and approachable for all age groups. In 2006, I helped establish the annual Science Saturday event at UMHB, a hands-on STEM event for K-5th grade. I continue to serve as the coordinator of this event and would be happy to share tips with anyone thinking about setting up something similar at their campus.

University of Michigan

Museum of Zoology, 3600 Varsity Drive, Ann Arbor, Michigan 48109

Cody W. Thompson

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Web page: codythompson.org

Research Interests, Projects, and Grants:

I consider myself a classically trained mammalogist, and as such, I use knowledge gained from observations made during fieldwork and through the examination of museum collections to answer questions about mammalian diversity. My research program focuses broadly on investigating the evolutionary patterns and processes that generate mammalian diversity. I also leverage natural history collections in the context of the extended specimen to examine museum voucher specimens in new and novel ways, e.g., emerging infectious diseases. My lab currently is funded by the National Institute of Health (Project # 1R15AI80994-01) and the National Science Foundation (Awards #2228389 and 2537244).

Students and Their Research:

- Josie Anderson – Mammalian Trait Data
- Paloma Calvin – Mammalian Trati Data
- Ava Fraleigh – Bat Immunology
- Sam Henry – Bat Development
- Katie Kinney – Rodent Morphology
- Victoria Sullivan – Bat Immunology

Other Lab Personnel:

- Justin Lee – Graduate Curatorial Assistant
- Haley Martens – CT Lab Technician
- Ramon Nagesan – CT Lab Manager

Additional Information:

I joined the Mammal Division at the University of Michigan Museum of Zoology (UMMZ) in June 2013. The UMMZ is administered by the Department of Ecology and Evolutionary Biology (EEB). I serve as the UMMZ Mammal Collections Manager and maintain a research appointment in EEB. With these two roles, I am fully involved in all aspects of the UMMZ Mammal Division, and I enjoy the challenge of integrating my experience working in museum collections with my own research program.

Washington and Lee University

204 W. Washington St., Lexington, VA 24450

Jessica Healy-La Price

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Email: jlaprice@wlu.edu

Research Interests, Projects, and Grants:
My primary area of study is the physiological ecology of ground squirrels that hibernate. Using both laboratory and field populations of thirteen-lined ground squirrels, I investigate interactions between hormones that control food intake and reproduction. A current project involves understanding sex differences in estradiol function in early active season hibernators. Another collaborative project involves investigating the latitudinal differences in hibernation patterns in thirteen-lined ground squirrels from Texas to Canada.

Undergraduate Students and Their Research:

- Kylee Cross & Brian Lee – Physiological regulation of hibernation to active season transition in ground squirrels
- Christina Ziccardi & Whitney Obialor – Hormone secretion profile of active-season ground squirrels

Additional Information:

- I teach a variety of undergraduate courses in ecophysiology and field mammalogy, including a travel term course to Panama.
- I'm currently Secretary of the Board of the International Hibernation Society.