Caleb D. Phillips – August 2024

I. GENERAL INFORMATION

CONTACT INFORMATION

Texas Tech University
Department of Biological Sciences
Lubbock, Texas 79424
Phone: 806-834-8181
Email: caleb.phillips@ttu.edu

Google Scholar Link
http://scholar.google.com/citations?user=kCqavJ0AAAAJ&hl=en

TTU Biology Link
https://www.depts.ttu.edu/biology/people/Faculty/phillipscaleb/

TTU NSRL Link
http://www.depts.ttu.edu/nsrl/directory/faculty_curators/bio/caleb-phillips.php

EDUCATION

Ph.D. in Genetics- 2009 Purdue University
Department of Forestry and Natural Resources, advised by John W. Bickham

M.S. in Biology- 2006 Tarleton State University
Department of Biological Sciences, advised by Russell S. Pfau

B.S. in Biology- 2003 Tarleton State University
Department of Biological Sciences

CURRENT ACADEMIC POSITIONS

Associate Professor, Department of Biological Sciences (tenured)
Texas Tech University, Lubbock, Tx, 79409

Curator of Genetic Resources Collection, Natural Science Research Laboratory
Museum of Texas Tech University, Lubbock, TX, 79409

PRIOR POSITIONS

1. Assistant Professor (2015-2021)
   Department of Biological Sciences, Texas Tech University, Lubbock, Tx, 79409
2. Adjunct Faculty (2014-2015)
   Department of Biological Sciences, Texas Tech University, Lubbock, Tx, 79409
3. Principal Scientist (2014-2015)
   Bioinformatics Team, Research and Testing Laboratory, Lubbock, TX, 79407
4. Postdoctoral Fellow (2009-2014)
   Department of Biological Sciences, Texas Tech University, Lubbock, TX 79409
5. Research Assistant (2006-2009)

Center for the Environment, Purdue University, West Lafayette, IN 47904

6. Genetics Laboratory Technician (2006)
   Biology Department, Tarleton State University, Stephenville, TX 76042
7. Graduate Assistant (2003-2006)
   Biology Department, Tarleton State University, Stephenville, TX 76042
8. Laboratory Technician (2001-2003)
   Pioneer Dairy Laboratory, Stephenville, TX 76041

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

1. American Society of Mammalogists - Life Member - Systematic Collections Committee Member
2. Texas Genetics Society - Member - Board of Directors (2017 -) - President (2019 - 2020)
3. Texas Society of Mammalogists - Patron Member

II. TEACHING

TEACHING AWARDS

1. Mortar Board and Omnicron Delta Kappa Faculty Teaching Recognition Award- January 2017

PEDAGOGICAL ACCOMPLISHMENTS

Dr. Phillips currently teaches three courses at TTU. He teaches Organic Evolution which is a primarily undergraduate large-enrollement departmental requirement. His other two course offerings consist of Metagenomic Analysis and Bioinformatics, both primarily offered at the graduate level.

SCHOLARSHIP OF TEACHING AND LEARNING

1. September 2015- "How to put your course online" hosted by Texas Tech Teaching and Learning Center

RESEARCH MENTORING

CHAIR OF DOCTORAL COMMITTEESS

1. Howard Huynh, **Completed Fall 2018**
   "Taxonomic delimitation and natural history of some mammals from Atlantic Canada"
   Texas Tech University, Biological Sciences
2. Craig Tipton, **Completed Spring 2023**
   "The chronic wound microbiome: complex communities shaped by microbial interaction and environmental selection"
   Texas Tech University, Biological Sciences
3. Matthew Fox, **Completed Fall 2022**
   "Musashi2 as a regulator of the development palate"
   Texas Tech University, Biological Sciences

4. Hendra Sihaloho
"Bat microbiome assembly and dissassembly across a habitat degradation gradient"
Texas Tech University, Biological Sciences

MEMBER OF DOCTORAL COMMITTEESS

1. Laramie Lindsey, **Completed Spring 2020**
"Genomic applications to examine patterns of diversification in deermice (Rodentia: Cricetidae: *Peromyscus*"
Texas Tech University, Biological Sciences
2. Emma Roberts, **Completed Spring 2020**
"Molecular evolution and phylogenetic importance of a gamete recognition gene Zan reveals a unique contribution to mammalian speciation." Texas Tech University, Biological Sciences
3. Jeremy Wilkinson, **Completed Spring 2016**
"Salinity drives commensal and free-living bacterial community structures: exampination of the microbial communites of fish, water, and sediment along salinity gradients in two tributaries of the Chesapeake Bay"
Texas Tech University, The Institute of Environmental and Human Health
4. Arnab Ghosh, **Completed Spring 2017**
"Gene annotation and small RNA characterization in the salt water crocodile: *Crocodylus porosus*"
Texas Tech University, Biological Sciences
5. Kelsey Thompson, **Completed Spring 2018**
"In Search of Biomarkers of Acid Rock Drainage: Assessment of the Impact of Mining Activities and Remediation on Microbial Communities in Fresh and Brackish Water Ecosystems"
Texas Tech University, The Institute of Environmental and Human Health
6. Jaspreet Kaur, **Completed Spring 2018**
"Explaining the dynamics of rare plant populations by coupling climatic, edaphic and microbial constraints"
Texas Tech University, Plant and Soil Sciences
7. Meijun Dong, **Completed Spring 2019**
"Soil microbial community resistance and resilience to biodiesels vs. petroleum diesel "
Texas Tech University, Biological Sciences
8. Ai Katazumi, **Completed Spring 2019**
"Genomic and epigenomic basis of transgressive segregation in rice"
Texas Tech University, Plant and Soil Sciences
9. Moamen Elmassry, **Completed Spring 2019**
"Pathogenesis of *Pseudomonas aeruginosa* during bacteremia: influence of trauma"
Texas Tech University, Health Sciences Center, Biological Sciences
10. Redman Whitni, **Completed Spring 2021**
"Assessing the Utility, Safety, and Host Response to Biofilm Dispersal"
Texas Tech University Health Sciences Center
11. Saba Nafees, **Completed Fall 2020**
"Application of Multivariate Tensor-based Orthogonal Polynomials to Biological Sequences"
Texas Tech University, Biological Sciences

12. Amin Ferdous, **Completed Fall 2022**
"Population Dynamics of Rhizobia: a Step towards Sustainable Agriculture for West Texas"
Texas Tech University, Biological Sciences
13. Anisha Navlekar, **Completed Summer 2022**
"A Multi-Omics Approach to Understanding Microbial Degradation of Polystyrene and Polyethylene by Tenebrio molitor and Plodia interpunctella larvae"
Texas Tech University, Biological Sciences
14. Emily Wright, **Completed Spring 2023**
"Texas Bighorn Sheep Genetics
Texas Tech University, Biological Sciences
15. Iroro Tanshi, **Completed Fall 2019**
"Bat species richness pattern and assemblage structure along elevational gradients in southeastern Nigeria"
Texas Tech University, Biological Sciences
16. Jordan Brown, **Completed Spring 2023**
working title: "Microbiomes in urban landscapes"
Texas Tech University, Biological Sciences
17. Caroline Schuster, **Completed Spring 2019**
"Investigating the Anti-Cancer Effects of Mitochondrial Function Disruption By Arctigenin, Chlorogenic Acid, and Cinnamaldehyde Alone or in Combination on Breast Cancer Cells"
Texas Tech University, Biological Sciences
18. Swarupa Mandal, **Completed Spring 2023**
Rice Genetics
Texas Tech University, Biological Sciences
19. Shariful Islam, **Completed Fall 2022**
working title pending
Texas Tech University, Biological Sciences
20. Austin Osmanski
"working title: "Genomic distribution of transposable elements across phylogeny"
Texas Tech University, Biological Sciences
21. Jack Hruska
working title: "Phylogeography of bird species in Central America infered from genome sequences"
Texas Tech University, Biological Sciences
22. Pranav Dawar, **Completed Summer 2023**
Characterizing gene interactions and microRNA nodes in Arabidopsis thaliana gene regulatory networks
Texas Tech University, Biological Sciences
23. Lindsay Williams
working title pending
Texas Tech University, Biological Sciences
24. Joanna Bateman
working title pending
Texas Tech University, Biological Sciences
25. Shiva Aghdam
working title pending
Texas Tech University, Biological Sciences

26. Benneth Obitte
working title pending
Texas Tech University, Biological Sciences
27. Victoria Youngblood
working title pending
University of North Texas, Biological Sciences
28. Javier Enrique Colmenares Pinzón
Palo Duro Mouse Genomics
Texas Tech University, Biological Sciences
29. Nicole Paulat
working title pending
Texas Tech University, Biological Sciences
30. Indra Adhikari
working title pending
Texas Tech University, Biological Sciences
31. Lauren Garrett
working title pending
Texas Tech University, Environmental Taxicology

CHAIR OF MASTERS COMMITTEESS

1. Oscar Sandate, **Completed Summer 2019**
"Determinants of digestive efficiency during reproduction in a highly vagile colonial bat"
Texas Tech University, Biological Sciences
2. Preston McDonald, **Completed Spring 2020**
"Status, Distribution, Morphology and Genetics of *Sigmodon fulviventer dalquesti* in the Chihuahuan Desert Ecoregion"
Texas Tech University, Biological Sciences
3. Rachael Wiedmeier **Completed Fall 2021**
"Bacteria to Bighorn: Health and microbiomes of desert bighorn sheep in Texas"
Texas Tech University, Biological Sciences
4. Megan Rowe **Completed Fall 2021**
"The Genomic Distribution of Musashi-binding Elements"
Texas Tech University, Biological Sciences
5. Khalid Omeir
"Transcriptome-wide association study of chronic wound microbiomes"
Texas Tech University, Biological Sciences
6. Jacob Ancira **Completed Spring 2024**
"Structural equation modeling for chronic wound microbiome composition as a predictor of healing time"
Texas Tech University, Biological Sciences

MEMBER OF MASTERS COMMITTEESS

1. Nicole Paulat, **Completed Spring 2020**
"Examining transposable elements in Myotis: distributions and associated mutations."
Texas Tech University, Biological Sciences

2. Beth Rogers, **Completed Spring 2018**
"Seasonal Flexibility in Lipid Metabolism in Brazilian Free-tailed Bats"
Texas Tech University, Biological Sciences
3. Taylor Soniat, **Completed Spring 2019**
"Assessing Levels of DNA Degradation in Frozen Tissues Archived in a Natural History Collection"
Texas Tech University, Biological Sciences
4. Bravada Hill, **Completed Spring 2019**
"Novel HiC Modification to Study Biofilms in Polymicrobial Infections"
Texas Tech University, Biological Sciences
5. Laura Blanco-Berdugo, **Completed Spring 2018**
"Exploring the TE landscape of elephant shark and CR1 accumulation, evolution, and effects of selection in the class Chondrichthyes"
Texas Tech University, Biological Sciences
6. Amie Sommers, **Completed Spring 2017**
"Phenotypic Flexibility and Energy Demand: Continuous Organismal Response Through the Summer Season"
Texas Tech University, Biological Sciences
7. Christopher Dunn, **Completed Spring 2016**
"Genetic Diversity and the Possible Origin of Contemporary Elk (*Cervus canadensis*) Populations in the Trans-Pecos Region of Texas"
Texas Tech University, Biological Sciences
8. Heidi Stevens, **Completed Summer 2021**
working title: "Rates of DNA degradation as a function of exposure to ambient temperature over time"
Texas Tech University, The Museum
9. Arrin Canales, **Completed Summer 2021**
"Establishing an agricultural origin of soils from shoes using a soil microbial approach"
Texas Tech University, TIEHH
10. Riley Risinger
Title pending
Texas Tech University, Biological Sciences

UNDERGRADUATE MENTORING

1. CJ Prew
"Biostatistics and Bioinformatics"
Texas Tech University Biological Sciences
2. Ashley Noe, **Completed lab experience in 2023**
"Biostatistics and Bioinformatics"
Texas Tech University Biological Sciences
3. Faith Avila, **Completed lab experience in 2023**
"Biostatistics and Bioinformatics"
Texas Tech University Biological Sciences
4. Khalid Omeir, **Completed lab experience in 2021**
"Biostatistics and Bioinformatics"
Texas Tech University Biological Sciences

5. Jake Ancira, **Completed lab experience in 2021**
"Biostatistical analysis training"
Texas Tech University Biological Sciences
6. Mark Wagner, **Completed lab experience in 2021**
"Biostatistical analysis training"
Texas Tech University Biological Sciences
7. Nadine Marshall, **Completed lab experience in 2019**
"Mouse colony work experiences"
Texas Tech University Biological Sciences
8. Raelynn Robinson, **Graduated Spring 2016**
"Mouse colony work experiences"
Texas Tech University Biological Sciences
9. Gregory Knox; TTU CISER Scholar, **Graduated Spring 2018**
"Histological and molecular training"
Texas Tech University Biological Sciences
10. Marilyn Mathew, Honors Student, **Graduated Spring 2016**
"Analysis and molecular lab work training"
Texas Tech University Biological Sciences

III. RESEARCH

PUBLICATIONS

ARTICLES (REFEREED)

First listed author indicates lead author, last author indicates senior directing author, and middle authors are in no particular order. Trailing numbers in parentheses are self-reported percentage effort by Dr. Phillips followed by journal quartile ranking as reported https://www.scimagojr.com/journalrank.php?type=j.

1. TIPTON CD, GABRILSKA R, ANCIRA J, JARVIS C, KOENIG L, WAKEMAN C, VAN GESTEL N, STEVENS RD, RUMBAUGH K, ARDON-DRYER K, **PHILLIPS CD** (preparing requested resubmission) Analysis of 9,241 North American wound specimens reveals six major microbiome community state types and meteorological associations. *Nature Communications.*
2. OMEIR K, ANCIRA J, GABRILSKA R, TIPTON C, MILLER C, NOE A, SUBASINGHE K, ROWE M, PHILLIPS N WOLCOTT J, **PHILLIPS CD** (under review) Heritable tissue-specific gene expression associates with chronic wound microbial species. *Wound Repair and Regeneration.*
3. ANCIRA J, GABRILSKA R, TIPTON CD, MILLER C, STICKLEY Z, OMEIR K, WAKEMAN C, LITTLE T, WOLCOTT J, **PHILLIPS CD** (under review) A Structural equation model predicts chronic wound healing time using patient characteristics and wound microbiome composition. *Wound Repair and Regeneration*
4. NEHA SA, HANSON JD, WILKINSON JE, BRADLEY RD, **PHILLIPS CD** (under review) Impacts of host phylogeny, diet, and geography on the gut microbiome of rodents. *PLoS One.*
5. MARTÍNEZ-CÁRDENAS A, VERNES SJ, TEELING EC, MAI M, SÁNCHEZ-DE LA VEGA G, GASCA-PINEDA J, AGUIRRE-PLANTER E, EGUIARTE LE, **PHILLIPS CD**, ORTEGA J(accepted) The genome sequence of the endemic Mexican Common Mustached Bat, Pteronotus mexicanus. Miller, 1902[Mormoopidae; Pteronotus]. *GENE.*

6. THOMAS-WHITE K, HILT EE, OLMSCHENK G, GONG M, **PHILIPS CD**, JARVIS C, SANFORD N, WHITE J, NAVARRO P(resubmitted) An Accurate Metagenomics Pipeline to Characterize Self-Collected Vaginal Microbiome Samples. *Diagnostics*.
7. CRAWFORD DE, MARTIN R, **PHILLIPS CD**, et al. (2023) Microbiomes in Post–Digital Rectal Exam Urine Samples are Linked to Prostate Cancer Risk, *JU Open Plus*, 1(12):e00075
8. GOSWAMI K, CLARKSON S, TIPTON C, **PHILLIPS CD**, et al. (2023) The microbiome of osteoarthritic hip and kee joints, *The Journal of Bone and Joint Surgery*, 105:1-9. http://dx.doi.org/10.2106/JI
9. AMARILLA-STEVENS HN, STEVENS RD, **PHILLIPS CD**, BRADLEY RD (2023) Temporal rate of postmortem DNA degradation in archived tissue samples: evidence from liver and muscle, Journal of Mammalogy, https://doi.org/10.1093/jmammal/gyac089
10. Goswami K, Clarkson S, **PHILLIPS CD**, et al. (2022) An Enhanced Understanding of Culture-Negative Periprosthetic Joint Infection with Next-Generation Sequencing, *The Journal of Bone and Joint Surgery*, 104:1523-9 d http://dx.doi.org/10.2106/JBJS.21.01061
11. MCDONALD PJ, **PHILLIPS CD** (2022) Natural history notes; UROSAURUS ORNATUS (Ornate Tree Lizard). Interspecific kleptoparasitism. *Herpetological Review* 53(3).
12. MCDONALD, PJ, PARLOS JA, COKENDOLPHER JC, ROBERTSON SJ, KREJCA JK, GIRON JC, BAKER RJ, **PHILLIPS CD** (2022) Mitochondrial perspective on species identification and delimitation for troglobitic Cicurina (Arachnida: Araneae: Hahniidae) from central Texas, Occassional Papers of the Museum of Texas Tech University, Number 381.
13. GOSWAMI K, CLARKSON S, **PHILLIPS CD**, et al. (2022) An enhanced understanding of culture-negative periprosthetic joint infection with next-generation sequencing: a multicenter study, *The Journal of Bone and Joint Surgery*, doi: 10.2106/JBJS.21.01061 (25, Q1)
14. CHUNG PH, LEONG JY, **PHILLIPS, CD**, HENRY GD (2022) Penile implant bacterial biofilm profiles vary by surgery indication: an opportunity to focus on peri-operative care, *The Journal of Sexual Medicine*, doi.org/10.1016/j.jsxm.2022.01.031 (25, Q1)
15. AVIRINENI BS, ARASHDEEP S, ZAPATA RC, STEVENS RD, **PHILLIPS CD**, CHELIKANI PK (2022) Diets containing egg or whey protein and inulin fiber improve energy balance and modulate gut microbiota in exercising obese rats, *Molecular Nutrition and Food Research*, doi.org/10.1002/mnfr.202100653 (25, Q1)
16. AVIRINENI BS, ARASHDEEP S, ZAPATA RC, **PHILLIPS CD**, CHELIKANI PK (2021) Dietary Whey and Egg Proteins Interact with Inulin Fiber to Modulate Energy Balance and Gut Microbiota in Obese Rats, *The Journal of Nutritional Biochemistry*, doi.org/10.1016/j.jnutbio.2021.108860 (25, Q1)
17. ANGLIM B, **PHILLIPS CD**, SHYNLOVA O, ALARAB M (2021) The effect of local estrogen therapy on the urinary microbiome composition of postmenopausal women with and without recurrent urinary tract infections, *International Urogynecology Journal*, https://doi.org/10.1007/s00192-021-04832-9 (40, Q1)
18. SONIAT TJ, SIHALOHO HF, STEVENS RD, LITTLE TD, **PHILLIPS CD**, BRADLEY RD (2021) Temporal-dependent effects of DNA degradation on frozen tissues archived at minus eighty Celsius, *Journal of Mammalogy*, 1093/jmammal/gyab009 (70, Q1-Q2)
19. KAUR J, **PHILLIPS CD**, SHARMA J (2021) Host population size is linked to orchid mycorrhizal fungal communities in roots and soil, which are shaped by microenvironment. *Mycorrhiza*, https://doi.org/10.1007/s00572-020-00993-5 (25, Q1)
20. VANDEWEGE M, CAIO C, **PHILLIPS CD** (2020) Positive selection on secretory and structural components of salivary glands within the ecologically diverse bat family Phyllostomidae. *Genome Biology and Evolution*, 10.1093/gbe/evaa151 (40, Q1)

21. TIPTON CD, WOLCOTT RD, SANFORD NE, MILLER C, PATHAK G, SILZER TK, SUN J, FLEMING D, RUMBAUGH KP, LITTLE TD, PHILLIPS N, **PHILLIPS CD** (2020) Patient genetics is linked to chronic wound microbiome composition and healing, *PLoS Pathogens*, journal.ppat.1008511 (60, Q1)

22. LINDSEY LL, PLATT RN, **PHILLIPS CD**, RAY DA, BRADLEY RD (2020) Differential Expression in Testis and Liver Transcriptomes from Four Species of *Peromyscus* (Rodentia: Cricetidae), *Genome Biology and Evolution*, . 12(1):3698–3709. doi:10.1093/gbe/evz280 (20, Q1)

23. TIPTON CD, SANFORD NE, EVERETT JA, GABRILSKA RA, WOLCOTT RD, RUMBAUGH KP, **PHILLIPS CD** (2019) Chronic wound microbiome colonization on mouse model following cryogenic preservation. *PLoS One*, 14(8): e0221565. (40, Q1)

24. **PHILLIPS CD**, DUNNUM JL, DOWLER RC, BRADLEY LC, GARNER HJ, MACDONALD KA, LIM BK, REVELEZ MA, CAMPBELL ML, LUTZ HL, ORDÓÑEZ GARZA N, COOK JA, BRADLEY RD, AND THE SYSTEMATIC COLLECTIONS COMMITTEE OF THE AMERICAN SOCIETY OF MAMMALOGISTS (2019). Curatorial guidelines and standards of the American Society of Mammalogists for collections of genetic resources. *Journal of Mammalogy*, 100(5): 1690–1694. (60, Q1-Q2)

25. KOHL KD, OAKESON KF, ORR TJ, MILLER AW, FORBEY JS, **PHILLIPS CD**, DALE C, WEISS RB, DEARING MD (2018) Metagenomic sequencing provides insights into microbial detoxification in the guts of small mammalian herbivores (Neotoma spp.). *FEMS Microbiology Ecology*, 92(12), https://doi.org/10.1093/femsec/fiy184. (15, Q1)

26. MONTERO BK, SAGOT M, **PHILLIPS CD**, BAKER RJ, GILLAM EH (2018) Geographic variation of contact calls suggest distinct modes of vocal transmission in a leaf-roosting bat. *Behavioral Ecology and Sociobiology*, 72:125. (10, Q1)

27. DUNN CD, MAULDIN MR, WAGLEY ME, WILKINSON JE, **PHILLIPS CD**, BRADLEY RD (2017) Genetic diversity and the possible origin of contemporary elk (*Cervus canadensis*) populations in the Trans-Pecos region of Texas. *Occasional Papers of the Museum of Texas Tech University*, No. 350. (10, not listed)

28. TIPTON CD, MATHEW ME, WOLCOTT RA, WOLCOTT RD, KINGSTON T, **PHILLIPS CD** (2017) Temporal dynamics of relative abundances and bacterial succession in chronic wound communities. *Wound Repair and Regeneration*, DOI: 10.1111/wrr.12555. (50, Q1)

29. **PHILLIPS CD**, HANSON JD, WILKINSON J, KOENIG L, REES E, WEBALA P, KINGSTON T (2017) Microbiome Structural and Functional Interactions across Host Dietary Niche Space. *Integrative and Comparative Biology*, DOI: 10.1093/icb/icx011. (60, Q1)

30. KUSHAK RI, WINTER HS, BUIE TM, COX SB, **PHILLIPS CD**, WARD NL (2017) Analysis of the duodenal microbiome in autistic individuals: associations with carbohydrate digestions. *Journal of Pediatric Gastroenterology*, and Nutrition. 64:110-116. (15, Q1)

31. BAKER RJ, DICKINS B, WICKLIFFE JK, KHAN FA, GASCHAK S, MAKOVA K, **PHILLIPS CD** (2017) Elevated mitochondrial genome variation after 50 generations of radiation exposure in a wild rodent. *Evolutionary Applications*, DOI: 10.1111/eva.12475. (50, Q1)

32. ROWAN N, WANG EW, KANAAN A, SAHU N, WILLIAMS JV, **PHILLIPS CD**, LEE, S (2017) Respiratory Viral Detection in the Paranasal Sinuses of Patients with Cystic Fibrosis. *American Journal of Rhinology and Allergy*, 31:105-108. (15, Q2)

33. LARSEN RJ, LARSEN PA, **PHILLIPS CD**, GENOWAYS HH, KWIECINSKI GG, PEDERSEN SC, PHILLIPS CJ, BAKER RJ (2017) Patterns of Morphological and Molecular Evolution in the Antillean Tree Bat,*Ardops nichollsi* (Chiroptera: Phyllostomidae). *Occasional Papers Museum Texas Tech University*, No. 345. (10, not listed)

34. WOLCOTT RD, HANSON JD, REES E, KOENIG L, **PHILLIPS CD**, WOLCOTT R, COX SB, WHITE J (2016) Analysis of the Chronic Wound Microbiota of 2963 Patients by 16S rDNA Pyrosequencing. *Wound Repairand Regeneration*, DOI:10.1111/wrr.12370. (35, Q1)
35. WARD NL, **PHILLIPS CD**, NGUYEN D, SHANMUGAM NKN, SONG Y, HODIN R, SHI HN, CHERAYIL BJ, GOLDSTEIN AM (2016) Antibiotic treatment induces long-lasting changes in the fecal microbiota that protect against colitis. *Inflammatory Bowel Diseases*, 10:2328-2340. (15, Q1)
36. SAGOT M, **PHILLIPS CD**, BAKER RJ, STEVENS, R (2016) Human-modified habitats change patterns of population genetic structure and group cohesion in Peters tent-roosting bats. *Ecology and Evolution*, doi: 10.1002/ece3.2255. (10, Q1)
37. KONSTANTINOS EP, WARD NL, **PHILLIPS CD**, TESHAGER A, PATEL P, MOHAMED MMR, HAKIMIAN S, COX SB, AHMED R, MOAVEN O, KALIANNAN K, ALAM SN, HALLER JF, GOLDSTEIN AM, BHAN AK, MALO MS, HODIN RA (2016) Prevention of antibiotic-associated metabolic syndrome in mice by intestinal alkaline phosphatase. *Diabetes, Obesity and Metabolism*, DOI: 10.1111/dom.12645 (15, Q1)
38. **PHILLIPS CD**, BAKER RJ (2015) Gene Recruitment by Alternative Splicing Underlies Vampire Bat Salivary Adaptations and Convergences with Sanguivorous Leeches, *Frontiers in Ecology and Evolution*, DOI:10.3389/fevo.2015.00122 (75, Q1)
39. MCDONOUGH MM, UMBERA R, MAZOCH V, FERGUSON AW, **PHILLIPS CD**, BRYJA J (2015) Multilocus phylogeography of a widespread savanna-woodland adapted rodent reveals the influence of Pleistocene geomorphology and climate change in Africas Zambezi region. *Molecular Ecology*, 24:5248-5266. (15, Q1)
40. ROWAN, N, LEE S, SAHO N, KANAAN A, COX SB, **PHILLIPS CD**, WANG E (2015) The role of viruses in the clinical presentation of chronic rhinosinusitis. *International Forum of Allergy and Rhinology*, 29(6):197-200. (15, Q1-Q2)
41. THOMAS J, **PHILLIPS CD**, BAKER RJ, PRITHAM EJ (2014) Rolling-circle transposons catalyze genomic innovation in a mammalian lineage. *Genome Biology and Evolution*, 6, 2595-2610. (15, Q1)
42. KLIMOVA A, **PHILLIPS CD**, FIETZ K, OLSEN M, HARWOOD J, AMOS W, HOFFMAN J (2014) Global population structure and demographic history of the grey seal. *Molecular Ecology*, 16, 3999-4017. (30, Q1)
43. PHILLIPS CJ, **PHILLIPS CD**, GOECKS J, LESSA EP, SOTERO-CAIO CG, TANDLER B, GANNON MR, BAKER RJ (2014) Dietary and fight energetic adaptations in a salivary gland transcriptome of an insectivorous bat. *PLoS One*, e83512. (30, Q1)
44. KHAN FAA, **PHILLIPS CD**, BAKER RJ (2014) Timeframes of speciation, reticulation, and hybridization in the Bulldog bat explained through phylogenetic analysis of all genetic transmission elements. *Systematic Biology*, 63, 96-110. (40, Q1)
45. SAGOT M, **PHILLIPS CD**, STEVENS RD, BAKER RJ (2013) Development and characterization of seventeen microsatellite loci for the Peters tent-roosting bat (Uroderma bilobatum). *Conservation Genetics Resources*, DOI 10.1007. (30, Q3-Q4)
46. **PHILLIPS CD**, BUTLER B, FONDON JW, MANTILLA-MELUK H, BAKER RJ (2013) Contrasting evolutionary dynamics of the developmental regulator PAX9, among bats, with evidence for a novel post-transcriptional regulatory mechanism. *PLoS One*, e57649. (70, Q1)
47. **PHILLIPS CD**, HOFFMAN JI, GEORGE JC, SUYDAM RS, HUEBINGER RM, PATTON JC, BICKHAM JW (2012) Molecular insights into the historical demography of bowhead whales: understanding the evolutionary basis of contemporary management practices. *Ecology and Evolution*, doi: 10.1002/ece3.374 (60, Q1)

48. **PHILLIPS CD**, PHELAN G, DOWD SE, MCDONOUGH MM, FERGUSON AW, HANSON JD, SILES L,ORDONEZ-GARZA N, SANFRANCISCO M, BAKER RJ (2012) Microbiome analysis among bats describes inuences of host phylogeny, life history, physiology and geography. *Molecular Ecology*, 11, 2617-2627. (60, Q1)
49. HOFFMAN JI, GRANT SM, FORCADA J, **PHILLIPS CD** (2011) Bayesian inference of historical bottleneck in a heavily exploited marine mammal. *Molecular Ecology, Q1*, 20, 3989-4008. (50)
50. **PHILLIPS CD**, GELATT TS, PATTON JC, BICKHAM JW (2011) Phylogeography of Steller sea lions: relationships among climate change, effective population size, and genetic diversity. *Journal of Mammalogy*. 92, 1091-1104. (60, Q1-Q2)
51. HOFFMAN JI, DASMAHAPATRA KK, AMOS W, **PHILLIPS CD**, GELATT TS, BICKHAM JW (2009) Contrasting patterns of genetic diversity at three different genetic markers in a marine mammal metapopulation. *Molecular Ecology*, 18, 2961-2978. (25, Q1)
52. **PHILLIPS CD**, PATTON JC, TRUJILLO R, GELATT TS, BICKHAM JW (2009) Assessing patterns, rates, and homoplasy at HVRI in Steller sea lions, *Eumetopias jubatus*. *Molecular Ecology*, 18, 3379-3393. (60, Q1)
53. **PHILLIPS CD**, BICKHAM JW, PATTON JC, GELATT TS (2009) Systematics of Steller sea lions (*Eumetopias jubatus*): subspecies recognition based on concordance of genetics and morphometrics. *Occasional Papers of the Museum of Texas Tech University*, 283. (60, not listed)
54. **PHILLIPS CD**, HENARD CA, PFAU RS (2007) Amplified Fragment Length Polymorphism and mtDNA analyses reveal patterns of divergence and hybridization in the cotton rat, *Sigmodon hispidus*. *Journal of Mammalogy*, 88, 351-359. (60, Q1-Q2)

NON PEER-REVIEWED PUBLICATIONS

1. Webb CVR, Koboziev I, Furr KL, **PHILLIPS CD**, Kottapalli KR, Ostanin DV, Bakkar HC, Grisham MB (2016) Intestinal bacterial composition of lymphopenic mice and susceptibility to CD45RBhigh T cell-induced colitis. *The Journal of Immunology*, 196:188.10. *Published Conference Abstract* (10)
2. **PHILLIPS CD** (2015) Life history, ecology, and status of fur seals and sea lions of Australia and New Zealand. (Book Review of Fur Seals and Sea Lions, By Roger Kirkwood and Simon Goldsworthy; CSIRO Publishing) *Journal of Mammalian Evolution*, 22(4):597-597. *book review* (100)

SOFTWARE

1. PHILLIPS CD (2016) FunkyTax: an R package for characterizing taxonomic and functional relationships among microbiome communities. www.github.com/genotyper/FunkyTax (100)

PROFESSIONAL PRESENTATIONS

An '*' indicates a student-led presentation.

1. Texas Tech University
   University of North Texas Biology Seminar Series, February 12, 2021
   Mammalian Host-Microbiome Interactions: New Insights from Bats and Humans""
2. Texas Tech University
   Tenure and Promotion Seminar, August 26, 2020
   Mammalian Host-Microbiome Interactions: New Insights from Bats and Humans""

3. Universiti Kebangsaan Malaysia
   Faculty Seminar Series, August 14, 2018
   "Eco-evolutionary Determinants of Microbiome Composition"
4. American Society of Mammalogists
   Symposium Organizer, June 22, 2017
   "Addressing Consequential Questions in Mammalogy Using Genomics"
5. Society for Integrative and Comparative Biology
   Microbiome Workshop, January 6, 2017
   "Metagenomic Challenges and Approaches"
6. Society for Integrative and Comparative Biology
   Metagenomics Symposium, January 6, 2017
   "Microbiome Structural and Functional Interactions Across Bat Dietary Niche Space"
7. Texas Tech University
   Department of Biological Sciences, Undergraduate Introduction to Biology, April 12 2016
   "Genomics of Mammalian Adaptation"
8. University of New Mexico
   Department of Biology Seminar Series, October 2015
   "Genome Evolution and Adaptations for Dietary Success"
9. American Society of Mammalogy
   Recent Advances in Mammalogy Symposium, June 2014
   "Bat Salivary Gland Transcriptomes and Inferences on Adaptation"
10. Department of Immunology and Molecular Microbiology
    Texas Tech University Health Sciences Center, February 2014
    "Recruitment of alternative splicing in the remarkable evolution of vampire bats"
11. University of Texas at Arlington
    Genome Biology Group Seminar Series, October 2012
    "A model for Musashi-mediated translational regulation in development and morphological evolution"
12. * Matthew Fox, Caleb Philips. The post-transcriptional regulator Musashi binds sonic hedgehog mRNA in the developing mouse palate.
    Texas Genetics Society, April 2021.
13. * Rebecca Gabrilska, Kendra Rumbaugh, Caleb Phillips. Genome-Wide Association Studies of the Human Chronic Wound Microbiota.
    TTUHSC Student Research Week, April 2021.
14. * Matthew Fox, Caleb Philips. The post-transcriptional regulator Musashi binds sonic hedgehog mRNA in the developing mouse palate.
    Texas Society of Mammalogists, February 2021.
15. * Rachael Wiedmeier, Warren Conway, Robert Bradley, Caleb Phillips. Microbiomes across the gut-lung axis in desert bighorn sheep and aoudad in Texas.
    Texas Society of Mammalogists, February 2021.
16. * Craig Tipton, Caleb Phillips. Chronic Wound Microbiome Colonization on Mouse Model Following Cryogenic Preservation.
    Texas Genetics Society, April 2019.
17. * Preston McDonald, Caleb Phillips. Status, Distribution, Morphology and Genetics Of Sigmodon fulviventer dalquesti in the Chihuahuan Desert Ecoregion.
    Texas Society of Mammalogists, February 2019.

18. * Laramie Lindsay, Caleb Phillips, Robert Bradley. A Phylogenomic Approach to Examining Relationships within Peromyscus.
Texas Society of Mammalogists, February 2019.

19. * Taylor Soniat, Caleb Phillips, Robert Bradley. Do Storage Temperatures Affect DNA Quality of Samples in Genetic Resource Collections?.
Texas Society of Mammalogists, February 2019.

20. * Oscar Sandate, Caleb Phillips. Gut-Microbiome and Digestive Efficiency Dynamics Throughout Reproduction in the Mexican Free-Tailed Bat, Tadarida brasiliensis.
Texas Society of Mammalogists, February 2019.

21. * Emily Wright, Caleb Phillips, Warren Conway, Robert Bradley. Using Genomics to Characterize Population Structure, Connectivity, Genetic Variation, and Health of Desert Bighorn Sheep in Texas.
Texas Society of Mammalogists, February 2019.

22. * Saba Nefees, Caleb Phillips, Sean Rice. Curating Large-scale Genomic Data Using Tensor-based Orthogonal Polynomials.
Nineth ACM Conference on Bioinformatics. August 29, 2018.

23. * Kelsey Thompson , Caleb Phillips, Greg Mayer. Spatial and Temporal Shifts in Sediment Bacterial Composition Affected by a Concentration Gradient of Acidic Rock Drainage in the Animas River Watershed.
Society of Environmental Toxicology and Chemistry, Summer 2018. Oral Presentation.

24. * Craig Tipton, Phillips Caleb. Chronic Wound Microbiome Colonization on Mouse Model Following Cryogenic Preservation.
Texas Tech University Health Sciences Center BCORE. 22 February 2018. Oral Presentation.

25. * Oscar Sandate, Phillips Caleb. Gut-microbiome dynamics throughout reproduction in the Mexican free-tailed bat, *Tadarida brasiliensis*.
Texas Society of Mammalogist, Junction, Texas. 16-18 February 2018. Oral Presentation.

26. * McDonald Preston, Phillips Caleb. Status, Distribution, Morphology and Genetics Of *Sigmodon fulviventer dalquesti* in the Chihuahuan Desert Ecoregion.
Texas Society of Mammalogist, Junction, Texas. 16-18 February 2018. Poster Presentation.

27. * Vandewege Mike, Phillips Caleb. Identifying the genetic adaptations of salivary glands within Phyllostomidae.
Society for Molecular Biology and Evolution Annual Meeting, 2017.

28. * Lindsey Laramie, Platt Neal, Phillips Caleb, Ray David, Bradley Robert. Evaluating the Lineage diversification of *Peromyscus* using a phylogenomic approach.
8th Texas Tech Annual Biological Science Symposium Meeting. April 8th, 2017.
Second Place Oral Presentation in Evolutionary Biology Category.

29. * Soniat Taylor, Phillips Caleb, MacDonald Kathy, Wilkinson Jeremy, Bradley Robert. Assessing levels of DNA and RNA degradation in frozen tissues archived in natural history collections.
8th Texas Tech Annual Biological Science Symposium Meeting. April 8th, 2017. First place for Oral Presentation in the category of Museum Science.

30. * Francis James, Platt Roy, Phillips C, Bradley Robert. Resolving the Phylogenetic variation in *Peromyscus maniculatus*; Possible evidence for multiple species.
8th Texas Tech Annual Biological Science Symposium Meeting. 2017. Oral Presentation. April 8th, 2017.

31. * Mathew, Marilyn, Tipton Craig, Wolcott Randy, Wolcott Rick, Kingston Tigga, Phillips Caleb, Temporal community variance and relative abundance of chronic wound microbiota.
CALUE Undergraduate Research Conference, 28-29 March, 2017. Poster Presentation.

32. * Knox Gregory, Sandate Oscar, Mathew Marilyn, Tipton Craig, Fox Matthew, Phillips Caleb, Microbiome and physiological responses to pregnancy.
CALUE Undergraduate Research Conference, 28-29 March, 2017. Poster Presentation.

33. * Lindsey Laramie, Platt Neal, Ray David, Phillips Caleb, Bradley Robert. The lineage diversification of *Peromyscus*: evidence from a transcriptomic dataset.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Oral Presentation.

34. * Sandate Oscar, Matthew Fox, Gregory Knox, Marylin Mathew, Craig Tipton, Caleb Phillips. Gut microbiome analysis during pregnancy in *Tadarida brasiliensis*.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Poster Presentation.
Clyde Jones Awared: Best Poster Presentation by a Graduate Student in Mammalian Systematics, Molecular Biology and Evolution

35. * Soniat Taylor, Phillips Caleb, MacDonald Kathy, Wilkinson Jeremy, Bradley Robert. Assessing levels of DNA and RNA degradation in frozen museum tissues.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Poster Presentation.

36. * Francis James, Platt Neal, Phillips Caleb, Bradley Robert. Resolving the phylogeography and phylogenetic variation in *Peromyscus maniculatus* based on Cytochrome-b.
Texas Society of Mammalogist, Junction, Texas. 10-12 February 2017. Oral Presentation.

37. * Wilkinson Jeremy, Hanson John, Phillips Caleb, Wages M, Rees Eric, Mayer Greg. Effects of two polyphenols on the gut microbiome and associated weight gain in mice.
7th Texas Tech Annual Biological Sciences Symposium. Texas Tech University, Lubbock, Texas. 1-2 April 2016.
Second Place, Oral Category, Microbiology Section.

38. * Lindsey Laramie, Platt Neal, Ray David, Phillips Caleb, Bradley Robert. Addressing the adaptive radiation in *Peromyscus* using transcriptome data. 7th Texas Tech Annual Biological Sciences Symposium. Texas Tech University, Lubbock, Texas. 1-2 April 2016.
First Place, Oral Category, Evolutionary Biology Section.

39. * Francis James, Phillips Caleb, Bradley Robert. Resolving the phylogeography and phylogenetic variation in *Peromyscus maniculatus* using molecular systematics and next gene sequencing.
7th Texas Tech Annual Biological Sciences Symposium. Texas Tech University, Lubbock, Texas. 1-2 April 2016.
First Place, Oral Category, Proposals Section.

40. * Lindsey Laramie, Platt Neal, Ray David, Phillips Caleb, Bradley Robert. Addressing the adaptive radiation in *Peromyscus* using transcriptome data.
Annual meeting of the Texas Society of Mammalogists. 12-13 February 2016. Oral Presentation.

41. * Francis James, Phillips Caleb, Bradley Robert. Phylogenetics of *Peromyscus maniculatus* based on the mitochondrial gene cytochrome-b.
Annual meeting of the Texas Society of Mammalogists. 12-13 February 2016. Poster Presentation.

CONFERENCE WORKSHOPS ORGANIZED/CONDUCTED

1. Participated in a metagenomics workshop at the 2017 meeting of the Society for Integrative and Comparative Biology. Denise Dearing and Kevin Kohl led organization of the workshop. I provided two lectures - one on a research topic and a second as a lunch hour workshop on methods and challenges.

2. Led the development (with John Hanson) of a symposium at the 2017 meeting of the American Society of Mammalogists. The title and topic of the symposium was "Genomic Approaches to Consequential Questions in Mammalogy".

FUNDING

EXTERNAL APPLICATIONS ACCEPTED

1. Title:Development of a CODIS-like Database for the Conservation and Management of Black Bears in Texas
   Agency: Texas Comptrollers Office
   PIs and Co-PIs: Robert Bradley (PI), Joseph Manthey (Co-PI), Caleb Phillips (Co-PI)
   Amount Requested/Obtained: 124,850 USD
   Duration: 2023-2025
   Percentage of Effort: 10
   Cayuse proposal number: 23-0279

2. Title: Dietary Inulin Fiber Supplementation for Protection Against Obesity, Hypertension and Stroke
   Agency: American Heart Association
   PIs and Co-PIs: Prasanth Chelikani (PI), Michael Cruz Penn (Co-PI), Caleb Phillips (Co-PI)
   Amount Requested/Obtained: 154,000 USD
   Duration: 2022-2024
   Percentage of Effort: 10
   Cayuse proposal number: 22-0424

3. Title: Morphology, landscape genomics and effective population size of the Palo Duro Mouse, *Peromyscus truei comanche*
   Agency: Texas Parks and Wildlife Department
   PIs and Co-PIs: Joseph Manthey (PI), Caleb Phillips (Co-PI), Robert Bradley (Co-PI)
   Amount Requested/Obtained: 239,316 USD
   Duration: 2022-2024
   Percentage of Effort: 25
   Cayuse proposal number: 21-0774

4. Title:Patient Genetic Determinants of Chronic Wound Microbiome Composition
   Agency:National Institutes of Health- NIGMS, R15 award
   PIs and Co-PIs: Caleb Phillips (PI)
   Amount Requested/Obtained: 421,373 USD
   Duration: 2021-2024
   Percentage of Effort: 100
   Cayuse proposal number: 20-0958

5. Title: Evaluating the risk of *Mycoplasma sp.* transmission from Aoudad to Bighorn Sheep
   Agency: Texas Parks and Wildlife Department
   PIs and Co-PIs: Caleb Phillips (PI)
   Amount Requested/Obtained: 40,281 USD (cost share portion = 10,081)
   Comment: This is a subaward through collaboration with TAMU: Total budget: 175,000 USD
   Duration: 2020-2021

Percentage of Effort: 100
Cayuse proposal number: 20-0464

6. Title: Community processes structuring assembly and disassembly of bat gut-microbial communities across a gradient of habitat degradation
Agency: National Science Foundation
Division: Division of Environmental Biology
PIs and Co-PIs: Tigga Kingston (PI), Caleb Phillips (Co-PI)
Amount Requested/Obtained: 829,961/829,961 USD
Duration: 2018-2024
Percentage of Effort: 50
Cayuse proposal number: 17-1119

7. Title: Genetic Species Identification of *Cicurina sp.*
Agency: Zara Environmental LLC
Mechanism: Contract
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: 16,199/16,199 USD
Duration: 2017-2022
Percentage of Effort: 100
Cayuse proposal number: 17-205

8. Title: Status, Distribution, Morphology and Genetics of *Sigmodon fulviventer dalquesti* in the Chihuahuan Desert Ecoregion
Agency: Texas Parks and Wildlife Department
Mechanism: State Wildlife Grants
PIs and Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: 134,447/134,447 USD (cost share portion = 34,859)
Duration: 2017-2023
Percentage of Effort: 100
Cayuse proposal number: 17-0748

9. Title:Endangered Eyeless *Cicurina* (Araneae: Dictynidae): Species Identification with Genetic Applications
Agency: TxDOT
Co-PIs: Robert Baker (PI), James Cokendolpher (Co-PI), Caleb Phillips (Co-PI)
Amount Requested/Obtained: 89,717/89,717 USD
Duration: 2014-2016
Percentage of Effort: 25
Cayuse proposal number: 14-0557

10. Title: Gut microbial compositions of ecologically diversified Chiropteran species
Agency: RTLGenomics - Cost-sharing grant program for 454-sequencing and data processing
Co-PIs: Caleb Phillips (PI)
Amount Requested/Obtained: 12,000/12,000 USD
Duration: 2010
Percentage of Effort: 100
Cayuse proposal number: NA

EXTERNAL APPLICATIONS DENIED

1. Title: Consolidation and enhancing stewardship of biodiversity collections into the Natural Science Research Laboratory
   Agency: National Science Foundation
   PIs and Co-PIs: Caleb Phillips (PI), Robert Bradley (Co-PI), Jerod Foster (Co-PI)
   Amount Requested/Obtained: 1,022,834 USD
   Duration: 2023-2027
   Percentage of Effort: 40
   Cayuse proposal number: 21-0870

2. Title: Prebiotic fibers: Mechanisms of satiety and protection against obesity
   Agency: NIH
   PIs and Co-PIs: Prasanth Chelikani (PI), Caleb Phillips (Co-PI)
   Amount Requested/Obtained: 1,577,425 USD
   Duration: 2022-2024
   Percentage of Effort: 25
   Cayuse proposal number: 22-1009

3. Title: Cryogenic Infrastructure Expansion at Texas Tech University for Enhanced Stewardship and Access
   Agency: Institute for Museum and Library Services
   PIs and Co-PIs: Caleb Phillips (PI), Robert Bradley (Co-PI)
   Amount Requested/Obtained: 496,863 USD
   Duration: 2022-2025
   Percentage of Effort: 50
   Cayuse proposal number: 22-0249

4. Title: Consolidation and enhancing stewardship of biodiversity collections into the Natural Science Research Laboratory
   Agency: National Science Foundation
   PIs and Co-PIs: Caleb Phillips (PI), Robert Bradley (Co-PI), Richard Stevens (Co-PI), Jerod Foster (Co-PI)
   Amount Requested/Obtained: 815,581 USD
   Duration: 2021-2026
   Percentage of Effort: 40
   Cayuse proposal number: 21-0870

5. Title: Prebiotic fibers: Mechanisms of satiety and protection against obesity
   Agency: National Institutes of Heath
   PIs and Co-PIs: Prasanth Chelikani (PI), Caleb Phillips (Co-PI)
   Amount Requested/Obtained: 2,037,361 USD
   Duration: 2021-2026
   Percentage of Effort: 25
   Cayuse proposal number: 21-0540

6. Title: Cryogenic Infrastructure Expansion at Texas Tech University for Enhanced Stewardship and Access
   Agency: Institute for Museum and Library Services
   PIs and Co-PIs: Caleb Phillips (PI), Robert Bradley (Co-PI)
   Amount Requested/Obtained: 249,662 USD
   Duration: 2021-2024
   Percentage of Effort: 50
   Cayuse proposal number: 21-0171

7. Title: Characterizing soil microbiomes essential to sustainable management of semi-arid cropping systems
   Agency:USDA-NIFA
   PIs and Co-PIs: Lindsey Slaughter (PI), Jyotsna Sharma (Co-PI), Caleb Phillips (Co-PI), Cassandra Huey (Co-PI)
   Amount Requested/Obtained: 749,999 USD
   Duration: 2021-2025
   Percentage of Effort: 20
   Cayuse proposal number: 20-0933

8. Title: Morphology, landscape genomics and effective population size of the Palo Duro Mouse, *Peromyscus truei comanche*
   Agency: Texas Parks and Wildlife Department
   PIs and Co-PIs: Joseph Manthey (PI), Caleb Phillips (Co-PI), Robert Bradley (Co-PI)
   Amount Requested/Obtained: 282,585 USD (cost share portion = 106,544)
   Duration: 2021-2023
   Percentage of Effort: 25
   Cayuse proposal number: 20-0726

9. Title: Management of Stress and Fish Health in Marine Aquaculture: Evaluating the effectiveness of probiotic intervention on productivity, profitability and production risk
   Agency: National Oceanic and Atmospheric Administration
   PIs and Co-PIs: Caleb Phillips (PI)
   Amount Requested/Obtained: 47,341 USD
   Comment: This is a subaward through collaboration with UNT: Total budget: 300,000 USD
   Duration: 2020-2022
   Percentage of Effort: 100
   Cayuse proposal number: 20-0206

10. Title: Predicting zoonotic transmission and designing a broad-spectrum coronavirus vaccine through genomic analysis of Old World and New World bat coronaviruses
    Agency: National Institutes of Health
    PIs and Co-PIs: Harvinder Gill(PI), Robert Bradley (Co-PI), Caleb Phillips (Co-PI), Steven Presley (Co-PI), Joseph Manthey (Co-PI)
    Amount Requested: 497,461 USD
    Duration: 2020
    Percentage of Effort: 12
    Cayuse proposal number: 20-0760

11. Title: Characterizing root and soil microbiomes essential to sustainable management of semi-arid cropping systems
    Agency: USDA Agricultueral Research Service
    PIs and Co-PIs: Lindsey Slaughter (PI), Jyotsna Sharma (Co-PI), Caleb Phillips (PI), Veronica Acosta-Martinez (Co-PI)
    Amount Requested: 743,902 USD
    Year: 2019
    Percentage of Effort: 20
    Cayuse proposal number: 20-0095

12. Title: Stress Management in Marine Aquaculture: Evaluating the effectiveness of probiotic interventions on productivity, profitability and fish health of Red Drum
    Agency: National Oceanic and Atmospheric Administration
    Co-PIs: Caleb Phillips (PI)
    Amount Requested: 70,093 USD
    Year: 2018
    Percentage of Effort: 100
    Cayuse proposal number: 19-0349

13. Title: Ensuring the long-term molecular integrity of natural history samples for biological and human health research
    Agency: Institute of Museum and Library Services
    Co-PIs: Caleb Phillips (PI), Robert Bradley (Co-PI)
    Amount Requested: 497,784 USD
    Year: 2018
    Percentage of Effort: 60
    Cayuse proposal number: 19-0236

14. Title: Stress Management in Marine Aquaculture: Evaluating the effectiveness of probiotic interventions on productivity, profitability and fish health of Red Drum
    Agency: National Oceanic and Atmospheric Administration
    Co-PIs: Caleb Phillips (PI) Amount Requested: 71,854 USD
    Year: 2018
    Percentage of Effort: 100
    Cayuse proposal number: 19-0141

15. Title: Revealing the predictors of chronic wound microbiomes using nationwide data, ecological theory and structural equation modeling
    Agency: National Institutes of Health
    Co-PIs: Caleb Phillips (PI)
    Amount Requested: 556,744 USD
    Year: 2018
    Percentage of Effort: 100
    Cayuse proposal number: 19-0047

16. Title: Revealing the predictors of chronic wound microbiomes using nationwide data, ecological theory and structural equation modeling
    Agency: American Diabetes Association

Co-PIs: Caleb Phillips (PI)
Amount Requested: 304,847 USD
Year: 2018
Percentage of Effort: 100
Cayuse proposal number: 18-0723

17. Title: Assessment of probiotics and microbiome diversity to produce healthy fish for human consumption using next generation deep sequencing technologies
Agency: National Oceanic and Atmospheric Administration
Co-PIs: Caleb Phillips (PI)
Amount Requested: 184,802 USD
Year: 2017
Percentage of Effort: 100
Cayuse proposal number: 17-0739

18. Title: Collaborative Research: Novel transposable element invasions and regulatory evolution
Agency: National Science Foundation
Co-PIs: David Ray (PI), Caleb Phillips (Co-PI)
Amount Requested: 1,025,538 USD
Year: 2016
Percentage of Effort: 50
Cayuse proposal number: 17-0287

19. Title: Dissertation Research: Taxonomy and Lyme Disease Ecology of Deer Mice on Grand Manan Island (Howard Hyunh)
Agency: National Science Foundation
Co-PIs: Caleb Phillips (PI)
Amount Requested: 18,141 USD
Year: 2016
Percentage of Effort: 100
Cayuse proposal number: 17-0157

20. Title: Storm-Proofing Fish? Using probiotics to reduce stress, increase gut health, and improve economic viability for marine finfish aquaculture in Texas
Agency: National Oceanic and Atmospheric Administration
Co-PIs: Caleb Phillips (PI)
Amount Requested: - preliminary proposal
Year: 2016
Percentage of Effort: 100
Cayuse proposal number: NA

21. Title: Preliminary Proposal: Community processes structuring assembly and disassembly of bat gut-microbial communities across a gradient of habitat degradation
Agency: National Science Foundation
Co-PIs: Tigga Kingston (PI), Caleb Phillips (Co-PI)
Amount Requested: 831,567 USD
Year: 2016
Percentage of Effort: 50

Cayuse proposal number: 16-1174

22. Title: Dimensions: Environmental degradation and insectivorous bats in Malaysia: how host genetics, gut microbiome and metagenome function interact to affect host health
Agency: National Science Foundation
Co-PIs: Tigga Kingston (PI), Liam McGuire (Co-PI), Caleb Phillips (Co-PI)
Amount Requested: 1,999,697 USD
Year: 2016
Percentage of Effort: 30
Cayuse proposal number: 16-0701

23. Title: Preliminary Proposal: Community processes structuring assembly and disassembly of bat gut-microbial communities across a gradient of habitat degradation
Agency: National Science Foundation
Co-PIs: Tigga Kingston (PI), Caleb Phillips (Co-PI)
Amount Requested: - preliminary proposal
Year: 2016
Percentage of Effort: 50
Cayuse proposal number: 16-0559

24. Title: Preliminary Proposal: Collaborative Research: Genomic Signatures of Diversification
Agency: National Science Foundation
Co-PIs: David Ray (PI), Richard Stevens (Co-PI), Cibele Caio (Co-PI), Liam McGuire (Co-PI), Caleb Phillips (Co-PI), Robert Bradley (Co-PI), Neal Platt (Co-PI)
Amount Requested: - Preliminary Proposal
Year: 2016
Percentage of Effort: 15
Cayuse proposal number: 16-0493

25. Title: Update of distribution and population status of Thomomys bottae in Texas with a focus on the subspecific status of *T. b. texensis*
Agency: Texas Parks and Wildlife Department
Co-PIs: Caleb Phillips (PI)
Amount Requested: 86,665 USD
Year: 2015
Percentage of Effort: 15
Cayuse proposal number: 16-0329

26. Title: DISSERTATION RESEARCH: Systematics and island biogeography of Peromyscus maniculatus in Atlantic Canada
Agency: National Science Foundation
Co-PIs: Caleb Phillips (PI) Robert Baker (Co-PI)
Amount Requested: 17,858 USD
Year: 2015
Percentage of Effort: 50
Cayuse proposal number: 16-0240

27. Title: Digitization TCN: Collaborative Research: Specimen Digitization for functional analysis of the biodiversity in bats
Agency: National Science Foundation
Co-PIs: Robert Bradley (PI), Caleb Phillips (Co-PI)
Amount Requested: 99,720 USD
Year: 2015
Percentage of Effort: 50
Cayuse proposal number: 16-0148

INTERNAL APPLICATIONS DENIED

1. Title: Expansion of TTU's liquid nitrogen infrastructure for archiving biospecimens for natural history and human health research
Agency: CH Foundation
Amount Requested: reroposal
Submitted: 2019
Percentage of Effort: 100

DONATIONS

1. Title: Development of the Wolcott Wound Care Research Collection in the Genetic Resources Collection of the NSRL
Agency: Private Donation from Randy Wolcott
Donation: 100,000 USD
Year: 2017

2. Title: Status of bighorn sheep in Texas: translocation history, disease risk potential, and establishment of archival tissue collection for range-wide disease surveillance
Agency: Donation from the Wild Sheep Foundation
PIs and Co-PIs: Warren Conway (lead), Robert Bradley, Caleb Phillips, Samuel Cunningham (research team)
Donation: 50,000 USD
Year: 2017

3. Title: Funding for a PhD student
Agency: Donation from the Texas Bighorn Sheep Foundation
PIs and Co-PIs: Warren Conway (lead), Robert Bradley, Caleb Phillips, Samuel Cunningham (research team)
Donation: 160,000 USD
Year: 2017

IV. SERVICE

DEPARTMENTAL SERVICE

1. Member of Biological Sciences Faculty Awards Committee (2022 -)

2. Member of a successful faculty search committee for a cell biologist at TTU Waco (2022)
3. Member of a successful faculty search committee for a virologist (2021)
4. Chair of the Bobby Baker Scholarship for Undergraduate Genomics Studies (2015 - 2020)
5. Member of a successful faculty search committee for a metagenomicist (2015)
6. Member of a successful faculty search committe for a plant phylogenomicist (2016)
7. Member of Biological Sciences Graduate Student Affairs Committee (2016 -)
8. Member of Biological Sciences Special Graduate Awards Committee (2017 -)
9. Member of Biological Sciences Genetics/Genomics Curriculum Committee (2017 -)
10. Member of a successful staff search committee for a Programmer Analyst I (2017)
11. Reviewer for biology graduate student annual proposal competition (2016 -)

COLLEGE SERVICE

1. Member of Arts and Sciences Committee on Academic Programs (2022-2024)
2. Member of Institutional Biosafety Committee (2023-2025)

SERVICE TO THE PROFESSION

1. Member of the Systematic Collections Committee of the American Society of Mammalogists. Through this role Dr. Phillips lead the development of formal national accreditation standards for the genetic resources collections.
2. Serving on the Texas Genetics Society Board of Directors (2017-2022).
3. Served as Vice President of the Texas Genetics Society (2018-2019).
4. Served as President of the Texas Genetics Society (2019-2020).

MEDIA PRESENTATIONS

1. https://www.youtube.com/watch?v=6bd9iqq12Vs
2. http://today.ttu.edu/posts/2016/10/expert-halloween
3. http://www.sciencedaily.com/releases/2015/10/151030220837.html
4. http://phys.org/news/2015-11-vampire-saliva-specially-evolved-blood-feeding.html
5. http://gizmodo.com/the-genetic-basis-for-vampirism-may-be-buried-across-th-1739793378
6. http://today.ttu.edu/posts/2015/10/vampire-bats-saliva-specially-evolved-for-blood-feeding
7. http://esciencenews.com/sources/newswise.scinews/2015/10/30/researchers.and.vampire.bats.saliva.specially.evolved.for.blood.feeding.
8. http://pirman.es/videos/la-saliva-de-murcielagos-vampiro-evoluciono-para-alimentarlos-de-sangre/
9. http://www.newswise.com/articles/view/642374/?sc=rsla
10. http://www.depts.ttu.edu/vpr/discoveries/features/a-design-for-blood.html
11. http://today.ttu.edu/posts/2017/01/nsrl-2
12. https://www.youtube.com/watch?v=6bd9iqq12Vs

13. Tipton et al. (2020 has been covered by ¿ 30 news outlets: e.g., The Scientist (Eidtor's Choice in Genetics and Genomics), 15MinuteNews.com, Alert Articles, AZoLifeSciences, BICYCLING - BIKES and GEAR, Bioengineer, Brigham and Women's Hospital, BrightSurf.com, Clinical Connection, Cooking With Kathy Man, Drugs.com, EurekAlert, everythingLubbock.com, Genetic Engineering and Biotechnology News Online, Health24 South Africa, HealthDay, HealthNewsDigest.com, Medical Xpress, NewsCaf, Newsmax.com, News-Medical.Net, Newswise, Science Newsnet, ScienceDaily, Scienmag, Tampa General Hospital Online, Texas Tech Today, U.S. News and World Report, USSA News Online, Webs Favourites)