

## Patrick John Lewis, Ph.D.

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### Academic Preparation:

**Doctor of Philosophy, Duke University.** Biological Anthropology and Anatomy, 2003.

Dissertation: *Metapodial morphology and the evolutionary transition of late Pleistocene to modern bison.*

Committee: V. L. Roth, E. L. Simons, D. Schmitt, S. E. Churchill (Chair).

**Master of Science, Texas Tech University.**

Interdisciplinary Studies, August, 1998.

Thesis: *Microevolution and the effect of paleoclimate on the muskrat from Lubbock Lake.*

Committee: R. J. Baker, R. Strauss, R. R. Paine, E. Johnson (Chair).

**Bachelor of Arts, Texas Tech University.**

Anthropology (summa cum laude, highest honors), May 1996.

**Associate in Applied Science, Community College of the Air Force.**

Weather Technology, April 1993.

### Positions Held:

January, 2014-current: Assistant Director, Bower's Honors College, Sam Houston State University, Huntsville, TX.

September 2010-current: Associate Professor of Biological Science, Sam Houston State University, Huntsville, TX.

September 2006-September 2010: Assistant Professor of Biological Science, Sam Houston State University, Huntsville, TX.

September 2003-September 2006: Assistant Professor of Biology, Pfeiffer University, Misenheimer, NC.

### Honors:

Appointed as Research Associate, Museum of Texas Tech University, 2007-current.

Sigma Xi, 2000; Appointed to Grants-in-Aid of Research committee, September 2009.

Phi Kappa Phi Honors Society, 1995.

Golden Key National Honors Society, 1994.

### Current Research Interests:

The effect of environmental change on dental and skeletal morphologies; evolution of Triassic microvertebrate faunas; paleoenvironmental reconstruction of hominin bearing sites in south Africa; forces that drive morphological changes in bone; evolution of North American bison; evolutionary trends in African rodents; the evolution of niche construction in mammals; the diagnosis of fossil species.

## Grants/Awards:

### Recent Grants Awarded:

Sam Houston State University, Enhancement Grant for Research, Spring 2012.

*Describing the skull of Zygaspis quadrifrons using HRXCT.*

Amount Awarded: **\$15,000.**

Sam Houston State University, Faculty Research Grant, Spring 2011.

*Excavation and Analysis of the Driefontein Microfauna.*

Amount Awarded: **\$5,000.**

National Science Foundation, RAPID Grant, Spring 2009.

*Post-wildfire vertebrate surveys of the Koanaka Hills, Botswana.* Co-PI: Dr. Monte Thies.

Amount Awarded: **\$45,830.**

Sam Houston State University, Enhancement Grant for Research, Spring 2008.

*Paleontological investigations at the Koanaka Hills site, Ngamiland, Botswana.* Amount

Awarded: **\$18,000.**

Wenner-Gren Foundation, Fall 2007 (renewal).

*Paleoanthropological investigation of Meloding, a Pliocene fossil locality in the Free State of South Africa.* Co-PI: Dr. Darryl de Ruiter. Amount Awarded: **\$24,550.**

Sam Houston State University, Faculty Research Grant, Spring 2007.

*Paleontological investigations at the Koanaka Hills site, Ngamiland, Botswana.*

Amount Awarded: **\$5,000.**

Wenner-Gren Foundation, Fall 2006.

*Paleoanthropological investigation of Meloding, a Pliocene fossil locality in the Free State of South Africa.* Co-PI: Dr. Darryl de Ruiter. Amount Awarded: **\$24,220.**

### Grants Awarded Prior to Hire at Sam Houston State:

#### Pfeiffer University

Title III Research Grant, Spring, 2005.

Mini-Grant, Spring, 2004.

#### Duke University

Graduate Fellowship, Fall 1998-Fall 2003.

Graduate School Travel Grant, Spring 2001, 2002, Fall 2002.

Graduate School Award for International Research, Spring 2001.

Sigma Xi Grants-in-Aid of Research, Spring 2001.

#### Texas Tech University

Summer Thesis Research Assistantship, Summer 1997.

Graduate School President's Scholarship, Fall 1996-Spring 1997.

H.Y. Price Scholarship, Fall 1994-Spring 1996.

Paul Horn Scholarship, Fall 1994-Spring 1995.

Evelyn I. Montgomery Scholarship, Spring 1994-Fall 1994.

## Publications:

Carling C. Urben, Juan D. Daza, Cristhian Cadena, **Patrick J. Lewis**, Monte Thies. (in review).

A name for the innominate bone of *Zygaspis quadrifrons* (Amphisbaenidae, Squamata). *The Anatomical Record*.

**Patrick J. Lewis**, Eileen Johnson, Steven E. Churchill, and Briggs Buchanan. (in review). Robusticity changes in the late Quaternary bison lineage of the North American Southern Plains Bison. *Journal of Archaeological Science*.

Molly M. McDonough, Cibele G. Sotero-Caio, Adam W. Ferguson, **Patrick J. Lewis**, Matlhogonolo Tswii, and Monte L. Thies. (2013). Mitochondrial DNA and karyotypic data confirm the presence of *Mus indutus* and *Mus minutoides* (Mammalian, Muridae, Nannomys) in Botswana. *Zookeys* 359:35-51.

- Eileen Johnson, **Patrick J. Lewis**, and Leland Bement. (2013). Taking the measure of a mark: exploratory size and shape analysis of cut marks. *Great Plains Research*, 23(1):59-80.
- Timothy L. Campbell, **Patrick J. Lewis**, Monte L. Thies, and Justin K. Williams. (2012). A Geographic Information Systems (GIS) based analysis of modern South African rodent distributions, habitat use, and environmental tolerances. *Ecology and Evolution*, 2(11):2881-2894.
- Alicia M. Kennedy, Johan Marias, Aaron M. Bauer, **Patrick J. Lewis**, and Monte L. Thies. (2012). Effect of fire on the herpetofauna of the Koanaka Hills, Ngamiland, Botswana. *Check List*, 8(4): 666-674.
- James C. Cureton II, **Patrick J. Lewis**, and Monte L. Thies. (2011). Evaluating acetic acid for removing microvertebrate fossils from cave breccias. *Botswana Notes and Records* 42:172-178.
- Adam W. Ferguson, Molly M. McDonough, Monte L. Thies, **Patrick J. Lewis**, and M. Gabadirwe. (2011). Mammals of the Koanaka Hills (Nqumtsa Hills) Region, Ngamiland, Botswana: A Provisional Checklist. *Botswana Notes and Records* 42:163-171.
- Patrick J. Lewis**, James Brink, Alicia M. Kennedy and Timothy L. Campbell. (2011). Examination of the Florisbad microvertebrates. *South African Journal of Science* 107(7/8):1-4.
- Timothy L. Campbell, **Patrick J. Lewis**, and Justin K. Williams. (2011). Analysis of the modern distribution of South African *Gerbilliscus* (Rodentia: Gerbillinae) with implications for Plio-Pleistocene paleoenvironmental reconstruction. *South African Journal of Science*, 107(1/2):1-8.
- Darryl J. de Ruiter, Juliet K. Brophy, **Patrick J. Lewis**, Alicia M. Kennedy, Tom Stidham, Keely B. Carlson, and John Hancox. (2010) Preliminary investigation of Matjhabeng, a Pliocene fossil locality in the Free State of South Africa. *Palaeontologia Africana*, 45:86-98.
- Daniela Ortiz, **Patrick J. Lewis**, Alicia M. Kennedy, Bhart-Anjan Bhullar, and J. Hancox. Preliminary analysis of lungfish (Dipnoi) tooth plates from Driefontein, South Africa. (2010). In: M. B. Mostovski, M. N. Ovechkina (eds), *Proceedings of the 16th Conference of the Palaeontological Society of Southern Africa*, pp. 72-74. Interpak Books, Pietermaritzburg, South Africa.
- Monte L. Thies, Miguel Aguilar, and **Patrick J. Lewis**. A morphometric comparison of *Aethomys chrysophilus* and *Micaelamys namaquensis* from northwestern Botswana. (2010). In: M. B. Mostovski, M. N. Ovechkina (eds), *Proceedings of the 16th Conference of the Palaeontological Society of Southern Africa*, pp. 106-107. Interpak Books, Pietermaritzburg, South Africa.
- Alicia M. Kennedy, Bhart-Anjan Bhullar, **Patrick J. Lewis**, and Monte L. Thies. (2010). A preliminary analysis of a Plio-Pleistocene herpetofauna from Botswana: A conservative apomorphy-based Identification. In: M. B. Mostovski, M. N. Ovechkina (eds), *Proceedings of the 16th Conference of the Palaeontological Society of Southern Africa*, pp. 49-51. Interpak Books, Pietermaritzburg, South Africa.
- Patrick J. Lewis**, Briggs Buchanan, Eileen Johnson, and Steven E. Churchill. (2009). The impact of changing grasslands on bison evolution. *Quaternary International*, 217:117-130.
- Aaron M. Bauer, Alicia M. Kennedy, **Patrick J. Lewis**, Monte L. Thies, and Mohutsiwa Gabadirwe. (2009). The herpetofauna of Koanaka South and adjacent regions, Ngamiland, Botswana. *Herpetological Bulletin*, 107:16-26.

Darryl J. de Ruiter, Juliet Brophy, **Patrick J. Lewis**, Lee Berger, and Steven E. Churchill. (2008). Animal paleocommunity composition and the paleoenvironment of Plovers Lake, South Africa. *Journal of Human Evolution*, 55(6):1102-1117.

**Patrick J. Lewis**, Briggs Buchanan, Eileen Johnson, and Steven E. Churchill. (2007). The evolution of *Bison bison*: a view from the Southern Plains. *Bulletin of the Texas Archeological Society*, 78:197-204.

**Patrick J. Lewis** and Elwyn L. Simons. (2007). Evolutionary trends in the rodent fauna from the Fayum of Egypt. *Palaeontologia Africana*, 42:37-42.

Briggs Buchanan, Eileen Johnson, Richard Strauss, and **Patrick J. Lewis**. (2007). A morphometric approach to assessing late paleoindian projectile point variability on the Southern High Plains. *Plains Anthropologist*, 203:279-300.

Juliet Brophy, Darryl J. de Ruiter, **Patrick J. Lewis**, Steven E. Churchill, and Lee R. Berger. (2006). Accumulating agents and paleoenvironment of the hominin-bearing site of Plovers Lake, South Africa. *Current Research in the Pleistocene*, 23:41-43.

**Patrick J. Lewis**, Eileen Johnson, Briggs Buchanan, and Leland Bement. (2006). Sexing *Bison antiquus* metapodials: a test of the PCA method. *Current Research in the Pleistocene*, 23:170-171.

**Patrick J. Lewis**, Eileen Johnson, Briggs Buchanan, and Leland Bement. (2006). Evidence of a *Bison antiquus* size cline on the Southern Plains. *Current Research in the Pleistocene*, 23:167-169.

**Patrick J. Lewis**, Briggs Buchanan, and Eileen Johnson. (2005). Sexing bison metapodials using principal component analysis. *Plains Anthropologist*, 50(194):150-172.

Eileen Johnson, Briggs Buchanan, Matthew Gill, **Patrick J. Lewis**, Corrine L. MacEwan, Stuart M. Selwood, Susan E. Baxevanis, Karen Hicks, and Karen L. O'Brien. (2002). Late Holocene investigations at the Lubbock Lake Landmark with the Texas Archeological Society Field School. *Bulletin of the Texas Archeological Society*, 73:69-97.

**Patrick J. Lewis**, Eileen Johnson, Briggs Buchanan, Leland Bement, and Laura Gruss. (2002). Size variation in Southern Plains *Bison antiquus* from the Lubbock Lake and Cooper sites. *Current Research in the Pleistocene*, 19:108-110.

**Patrick J. Lewis**, Richard Strauss, Eileen Johnson, and Warren C. Conway. (2002). Lack of sexual dimorphism in molar morphology of *Ondatra zibethicus* (Rodentia: Arvicolinae). *Journal of Wildlife Management*, 66(4):1189-1196.

**Patrick J. Lewis** and Eileen Johnson. (2002). Biogeography and paleoenvironments of late-Pleistocene *Ondatra zibethicus* (Rodentia: Arvicolinae) on the Southern Plains. *Southwestern Naturalist*, 47(1):121-125.

**Patrick J. Lewis**, Matthew Gill, and Stuart M. Selwood. (2002). Lubbock Lake Survey Program for 1991-1997. Pp. 34-88 in (Eileen Johnson, ed.), Holocene Investigations at the Lubbock Lake Landmark: The 1991-1998 Work. *Lubbock Lake Quaternary Research Series*, Number 11.

Eileen Johnson, **Patrick J. Lewis**, Richard Strauss, and James A. Clark Jr. (2000). Early Holocene muskrat in Wisconsin. *Current Research in the Pleistocene*, 17:125-127.

Robert Paine and **Patrick J. Lewis**. (2000). A late-Archaic burial from Yoakum County, Texas: crossroads of Bioanthropology and Forensics. *Texas Journal of Science*, 52:13-24.

**Patrick J. Lewis**, Maria Gutierrez, and Eileen Johnson. (2000). Muskrat (*Ondatra zibethicus*) dental microwear patterns as a potential tool for paleoenvironmental reconstruction. *Journal of Archaeological Science*, 27:789-798.

Maria Gutierrez, **Patrick Lewis**, and Eileen Johnson. (1998). Evidence for paleoenvironmental change from differential dental microwear patterns in the muskrat from Lubbock Lake. *Current Research in the Pleistocene*, 15:107-109.

**Patrick Lewis**. (1998). The Spencer Collection: analysis of a private lithic collection from Daviess County, Kentucky. *Tennessee Anthropologist*, 23(1-2):37-54.

**Patrick Lewis** and Eileen Johnson. (1997). Climate and muskrats at Lubbock Lake. *Current Research in the Pleistocene*, 14:145-147.

**Invited Reviewer For:**

*Plains Anthropologist*; *Current Research in the Pleistocene*; *Herpetologica*.

Reviewed 6 chapters for various text books.

**Grants Reviewed:**

South Africa National Research Foundation, May 2011.

Sigma Xi Grants-in-Aid of Research.

Annual grant review meetings in April and December, 2007 through current. I have read grants in Anthropology, Behavioral Ecology, Ecology, and Systematics and Evolution.

Sam Houston State University, Joey Harrison Grant, March 2009, March 2010.

Texas Academy of Science, February 2009, 2010.

**Presentations:**

**Lewis, Patrick J.** Driefontein: A Window into the Early Triassic of South Africa. Invited lecture for the Houston Gem and Mineral Society, November 26, 2013.

Moretti, John, Eileen Johnson, Joaquin Arroyo-Cabrales, and **Patrick J. Lewis**. Exploring the Relationships of the North American Diminutive Skunk Genera *Spilogale* and *Buisnictis*. Society of Vertebrate Paleontology, Los Angeles, CA, November 7, 2013.

**Lewis, Patrick J.**, Elizabeth Horstman, Eileen Johnson, and B. Buchanan. A late Quaternary bison size cline on the Southern Plains. Society of Vertebrate Paleontology, Los Angeles, CA, November 7, 2013.

Mapps, Aurelia A., Cristian Cadena, and **Patrick J. Lewis**. Analysis of the Skull of *Gekko gecko* Using High Resolution X-ray Computed Tomography. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico. July 14, 2013.

Cadena, Cristian, **Patrick J. Lewis**, Alicia M. Kennedy, and Monte L. Thies. Cranial morphology of Bradfieldi's dwarf gecko (*Lygodactylus bradfieldi*) based on high resolution x-ray computed tomography. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico. July 14, 2013.

Nobleza Kenneth, Cristian Cadena, Christopher J. Bell, and **Patrick J. Lewis**. Cranial Endocast and Inner Ear of the Amphisbaenian, *Zygaspis quadrifrons*. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico, July 14, 2013.

**Patrick J. Lewis**, Cristhian Cadena, Elisabeth Horstman, Grayson Means, Alicia M. Kennedy, and Christopher J. Bell. Cranial Morphology of *Zygaspis quadrifrons* Revealed by High Resolution X-ray Computed Tomography. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico, July 14, 2013.

Urban, Carling, Cristian Cadena, and **Patrick J. Lewis**. Vestigial Pelvises of Amphibaenids and Their Importance in Determining Evolutionary Relationships. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Neal, Amber, Kourtney Hanson, Cristian Cadena, and **Patrick J. Lewis**. Variation of the Quadrate Bone of Amphisbaenids Using High Resolution X-ray Computed Tomography. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Means, Grayson, Cristian Cadena, and **Patrick J. Lewis**. A Comparison of the Frontal and Parietal in the Amphisbaenid *Zygaspis quadrifrons*. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Seidel, Sara, Cristian Cadena, and **Patrick J. Lewis**. The Anatomical Description of the Hearing Apparatus of *Zygaspis* (Squamata, Amphisbaenia). 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Littlefield, Kalen, Cristian Cadena, and **Patrick J. Lewis**. Comparison of the Palatine of *Zygaspis niger* and *Z. quadrifrons* Using High Resolution X-ray Computed Tomography. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Nobleza Kenneth, Cristian Cadena, Christopher J. Bell, and **Patrick J. Lewis**. Cranial Endocast and Inner Ear of the Amphisbaenian, *Zygaspis quadrifrons*. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Mapps, Aurelia. A., Cristian Cadena., and **Patrick J. Lewis**. A Preliminary Analysis of the Cranium of a *Gekko gecko* Using High Resolution X-Ray Computed Tomography. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Lorentzen, Harmony, **Patrick J. Lewis**, and M. Labbe. Estimating Environmental Condition Changes Using Botswana Owl Pellets. 6<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 20 April 2012.

Kennedy, Alicia M., **Patrick J. Lewis**, and Darryl J. de Ruiter. The earliest record of *Cordylus* from continental Africa. 116<sup>th</sup> Texas Academy of Sciences meeting, Kerrville, TX, March 1, 2013.

Cadena, Cristian, Alicia M. Kennedy, and **Patrick J. Lewis**. Cranial morphology of the kalahari round-headed worm lizard (*Zygaspis quadrifrons*) using high resolution X-ray Computed Tomography. 116<sup>th</sup> Texas Academy of Sciences meeting, Kerrville, TX, March 1, 2013.

Mapps, Aurelia, Cristian Cadena, and **Patrick J. Lewis**. Preliminary analysis of the cranium of *Gekko gecko* using high resolution X-ray Computed Tomography. 116<sup>th</sup> Texas Academy of Sciences meeting, Kerrville, TX, March 1, 2013.

**Lewis, Patrick J.** Sigma Xi Grants-in-Aid-of-Research: Putting together a fundable proposal. University of Texas Brown Bag seminar, January 31, 2013.

**Lewis, Patrick J.** An integrated approach to paleoenvironmental reconstruction. Invited lecture at The University of Texas at Tyler, 11 November, 2012.

Thies, Monte L., Richard Tutalo, Michelle D. Labbe, and **Patrick J. Lewis**. Assessing the difficulties of genus-level diagnoses of fossil rodents. 72<sup>nd</sup> Annual Meetings Society of Vertebrate Paleontology, Raleigh, NC, 17-20 October 2012.

De La Garza, Randy G., **Patrick J. Lewis**, and Todd P. Primm. The Bacterial Flora of Repository Fossils: Sources, Survival, and Removal. 72<sup>nd</sup> Annual Meetings Society of Vertebrate Paleontology, Raleigh, NC, 17-20 October 2012.

McDonough, Molly M., Cibele G. Sotero-Caio, Robert J. Baker, **Patrick J. Lewis**, Monte L. Thies, and Matlhogonolo Tswii. Mitochondrial, morphological, and karyotypic data confirm the presence of multiple lineages of *Mus* in Botswana. Texas Academy of Science Annual Meetings, Sul Ross University, Alpine, TX, 3-5 March 2012.

De La Garza, Randy G., **Patrick J. Lewis**, and Todd P. Primm. Microbial activity on fossils: A threat to repositories? Texas Academy of Science Annual Meetings, Sul Ross University, Alpine, TX, 3-5 March 2012.

De La Garza, Randy G., **Patrick J. Lewis**, and Todd P. Primm. Bacteria Cultured from Museum Fossils. 112th General Meeting, San Francisco, CA, June 16-19, 2012,

Cadena, Cristian, **Patrick J. Lewis**, Alicia M. Kennedy, and Monte L. Thies. Cranial morphology of Bradfieldi's dwarf gecko (*Lygodactylus bradfieldi*) based on high resolution x-ray computed tomography. 5<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 21 April 2012.

De La Garza, Randy G., **Patrick J. Lewis**, and Todd P. Primm. Is Microbial Activity a Threat to Fossils? 5<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 21 April 2012.

Massey, Amber, **Patrick J. Lewis**, and Bhart-Anjan Bhullar. Morphological Analysis of the Middle Ear of Morganucodon. 5<sup>th</sup> Annual Undergraduate Research Symposium, Sam Houston State University, 21 April 2012. **Best Poster Award Winner.**

**Patrick J. Lewis.** An integrated approach to paleoenvironmental reconstruction. Palaeontological Society of South Africa Biannual Meeting, Cape Town, South Africa, 5-8 September, 2012.

Cadena, Cristian, **Patrick J. Lewis**, Alicia M. Kennedy, and Monte L. Thies. Cranial morphology of the Cape dwarf gecko (*Lygodactylus capensis*) based on high resolution x-ray computed tomography. 8<sup>th</sup> Annual McNair Scholars Program Research Conference, Sam Houston State University, 28 September 2012.

Campbell, Timothy L., **Patrick J. Lewis**, and Monte L. Thies. Issues with museum specimen identifications: discriminant function analysis of mandibular first molar measurements for two cryptic rodent taxa, *Gerbilliscus leucogaster* and *G. brantsii*. Texas Academy of Science Annual Meetings, Sul Ross University, Alpine, TX, 3-5 March 2012.

Tutalo, R., **Patrick J. Lewis**, and Monte L. Thies. A comparative analysis of small mammals from barn owl pellets and live trapping from the Koanaka Hills, northwestern Botswana. Society of Vertebrate Paleontologists Annual Meetings, Las Vegas, NV, 2-5 Nov. 2011

Thies, Monte L., Irissa Arney, Burtin Denova, Julie Taylor, and **Patrick J. Lewis**. Species-level apomorphies in southern African microfauna: data from the post-crania. Society of Vertebrate Paleontologists Annual Meetings, Las Vegas, NV, 2-5 Nov. 2011

**Lewis, Patrick J.**, Monte L. Thies, Timothy Campbell, Richard Tutalo, and Alicia M. Kennedy. The small mammal fauna from Koanaka South and the utility of rodents as paleoenvironmental indicators. Society of Vertebrate Paleontologists Annual Meetings, Las Vegas, NV, 2-5 Nov. 2011

Denova, Burtin, Julie Taylor, Irissa Arney, **Patrick J. Lewis**, and Monte L. Thies. Species-level apomorphies in southern African microfauna: data from the post-crania. American Society of Mammalogists, Portland State University, Oregon, 24-29 June 2011.

McDonough, Molly M., Cibele G. Sotero-Caio, **Patrick J. Lewis**, Monte L. Thies, Matlhogonolo Tswii, and Robert J. Baker. Reevaluation of African *Mus* in Botswana using DNA sequences, cytogenetics, and morphology. American Society of Mammalogists, Portland State University, Oregon, 24-29 June 2011.

Thies, Monte L., Alicia M. Kennedy, and **Patrick J. Lewis**. Preliminary analyses of post-wildfire vertebrate surveys of the Koanaka Hills, Botswana. American Society of Mammalogists, Portland State University, Oregon, 24-29 June 2011.

Irisa Arney, Burtin Denova, Julie Taylor, **Patrick J. Lewis**, and Monte L. Thies. *Species-level apomorphies in southern African microfauna: data from the post-crania*. Southwestern Association of Naturalists Annual Meetings, University of Texas at Tyler, 22-24 April 2011.

Burtin Denova, Julie Taylor, Irisa Arney, **Patrick J. Lewis**, and Monte L. Thies. *Species-level apomorphies in southern African microfauna: data from the post-crania*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Hannah Johnson, **Patrick J. Lewis**, Bhart-Anjan Bhullar, Alicia M. Kennedy, and P. John Hancox. *Preliminary analysis of vertebrae from the Early Triassic Dreifontein site, South Africa*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Heather Johnson, **Patrick J. Lewis**, Katy Estill, Joseph L. Reeve. *A preliminary analysis of small mammal fossil remains from Koanaka Hills, Botswana*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Justin Hooten, Timothy L. Campbell, and **Patrick J. Lewis**. *Preliminary analysis of morphological variation in the Otomyinae*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Michelle Labbe, Richard Tutalo, and **Patrick J. Lewis**. *An analysis of dental morphology in the small Murines from Koanaka Hills, Botswana*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Lauren Lowe, Justin Hooten, Micky Labbe, Mallory Wilson, and **Patrick J. Lewis**. *The preliminary analysis of the small mammal fauna from the localities of Bone Cave, northwestern Botswana*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Joseph L. Reeve, Madhusudan Choudhary, **Patrick J. Lewis**, and Monte L. Thies. *A molecular analysis of owl pellet remains from Koanaka Hills, Botswana*. 1st Annual Research Symposium, Sam Houston State University Department of Biological Sciences, Huntsville, Texas, 8 April 2011.



Richard S. Tutalo, **Patrick J. Lewis**, and Monte L. Thies. *Comparative analysis of small mammals from barn owl pellets and live trapping from northwestern Botswana*. 1st Annual Research Symposium, Sam Houston State University Department of Biological Sciences, Huntsville, Texas, 8 April 2011.

Julie A. Doyle, Amber Massey, **Patrick J. Lewis**, Bhart-Anjan Bhullar, Alicia Kennedy, and John Hancox. *Preliminary analysis of isolated archosaur teeth from an early Triassic site in Driefontein, South Africa*. 1st Annual Research Symposium, Sam Houston State University Department of Biological Sciences, Huntsville, Texas, 8 April 2011.

Richard Tutalo, **Patrick J. Lewis**, and Monte L. Thies. *A comparative analysis of small mammals from barn owl pellets and live trapping from the Koanaka Hills, northwestern Botswana*. Southwestern Association of Naturalists Annual Meetings, University of Texas at Tyler, 22-24 April 2011.

Dustin Jones, Richard Tutalo, Monte L. Thies, and **Patrick J. Lewis**. *A comparison of cranial and post-cranial elements for estimating MNI in owl pellets*. 4th Annual Undergraduate Research Symposium, Sam Houston State University, 16 April 2011.

Irisa Arney, **Patrick J. Lewis**, and Monte L. Thies. *The diagnosis of South African microfauna using femoral morphology*. Texas Academy of Science Annual Meetings, St. Edwards University, Austin, Texas, 3-5 March 2011.

Timothy L. Campbell, **Patrick J. Lewis**, Justin K. Williams, and Monte L. Thies. *New southern African rodent niche models for use in taxonomic habit indices*. Texas Academy of Science Annual Meetings, St. Edwards University, Austin, Texas, 3-5 March 2011.

Joseph L. Reeve, Madhusudan Choudhary, **Patrick J. Lewis**, and Monte L. Thies. *A molecular analysis of owl prey from Koanaka Hills, Botswana*. Texas Academy of Science Annual Meetings, St. Edwards University, Austin, Texas, 3-5 March 2011.

Richard S. Tutalo, **Patrick J. Lewis**, and Monte L. Thies. *A comparative analysis of small mammals from barn owl pellets and live trapping from the Koanaka Hills, Northwestern Botswana*. Texas Academy of Science Annual Meetings, St. Edwards University, Austin, Texas, 3-5 March 2011.

Molly M. McDonough, C. G. Sotero-Caio, **Patrick J. Lewis**, Monte L. Thies, Matlhogonolo Tswiiio, and Robert J. Baker. *Revaluation of African Mus in Botswana using DNA sequences, cytogenetics, and morphology*. Texas Society of Mammalogists Annual Meetings, Texas Tech University Llano River Field Station, Junction, TX, 25-27 February 2011.

Timothy L. Campbell, **Patrick J. Lewis**, Justin K. Williams, Monte L. Thies. *New Southern African Rodent Niche Models for Use in Taxonomic Habitat Indices*. Texas Association of Biological Anthropologists annual meeting, November 6, 2010.

Daniela Ortiz, **Patrick J. Lewis**, Alicia M. Kennedy, Bhart-Anjan Bhullar, and J. Hancox. *Preliminary analysis of lungfish (Dipnoi) tooth plates from Driefontein, South Africa*. Palaeontological Society of Southern Africa biannual meeting, August 7, 2010.

Monte L. Thies, Miguel Aguilar, and **Patrick J. Lewis**. *A morphometric comparison of Aethomys chrysophilus and Micaelamys namaquensis from northwestern Botswana*. Palaeontological Society of Southern Africa biannual meeting, August 7, 2010.

Alicia M. Kennedy, Bhart-Anjan Bhullar, **Patrick J. Lewis**, and Monte L. Thies. *A preliminary analysis of a Plio-Pleistocene herpetofauna from Botswana: A conservative apomorphy-based Identification*. Palaeontological Society of Southern Africa biannual meeting, August 7, 2010.

**Patrick J. Lewis**. *An integrated approach to paleoenvironmental reconstruction*. Invited lecture for the Sam Houston State University Biological Sciences seminar series, December 10, 2009.

**Patrick J. Lewis**. *Driefontein: a window into the Early Triassic of South Africa*. Invited lecture for the Houston Gem and Mineral Society, November 24, 2009.

Sophia M. Aguayo, Eileen Johnson, and **Patrick J. Lewis**. *Skeletal indications of lifestyle in a Southern High Plains Comanche population*. Plains Anthropologist annual meeting, October 14, 2009.

**Patrick J. Lewis**, Alicia M. Kennedy, Darryl J. de Ruiter, and Juliet Brophy. *Preliminary Analysis of the Small Mammal Fauna from Matjhabeng, Free State, South Africa*. Society of Vertebrate Paleontologists annual meeting, September 23, 2009.

Alicia M. Kennedy, Thomas A. Stidham, **Patrick J. Lewis**, and Darryl J. de Ruiter. *The nonmammalian fauna from the Middle Pliocene Matjhabeng site, South Africa*. Society of Vertebrate Paleontologists annual meeting, September 23, 2009.

Timothy L. Campbell and **Patrick J. Lewis**. *How useful are Otomys (Rodentia: Otomyinae) in southern African paleoenvironmental reconstruction of hominin-bearing localities? Results from a Geographic Information Systems (GIS) analysis of their proximity to water*. Society of Vertebrate Paleontologists annual meeting, September 24, 2009.

Molly M. McDonough, Adam W. Ferguson, Robert J. Baker, Monte L. Thies, **Patrick J. Lewis**, and Mohutsiwa Gabadirwe. *Molecular identification of small mammals from Botswana's Koanaka Hills*. 10<sup>th</sup> International Mammalogical Congress, August 14, 2009.

**Patrick J. Lewis**. *The Koanaka Hills Project: an overview with particular attention to the paleontological excavation of Bone Cave*. Invited lecture for the Botswana National Museum, July 5, 2009.

Adam W. Ferguson, Molly M. McDonough, Robert J. Baker, Monte L. Thies, **Patrick J. Lewis**, and Mohutsiwa Gabadirwe. *Importance of incorporating genetic diversity in mammalian surveys: a case study from Botswana's Koanaka Hills*. American Society of Mammalogists annual meeting, June 21, 2009.

**Patrick J. Lewis**. *Past and present environments of the Koanaka Hills, Botswana*. Invited lecture for the Sam Houston State University REU program, May 25, 2009.

Timothy L. Campbell and **Patrick J. Lewis**. *The utility of rodent assemblages in testing niche specialization in hominins*. American Association of Physical Anthropologists annual meeting, March 18, 2009.

**Patrick J. Lewis**, Alicia M. Kennedy, Tom Stidham, and Darryl J. de Ruiter. *Preliminary analysis of the small animal fauna from Matjhabeng, Free State, South Africa*. American Association of Physical Anthropologists annual meeting, March 18, 2009.

Darryl J. de Ruiter, Juliet K. Brophy, **Patrick J. Lewis**, P. John Hancox, Keely B. Carlson, and Tom Stidham. *Preliminary investigation of Matjhabeng, a Pliocene fossil locality in the Free State of South Africa*. American Association of Physical Anthropologists annual meeting, March 18, 2009.

Alicia M. Kennedy, Thomas A. Stidham, **Patrick J. Lewis**, and Darryl J. de Ruiter. *The nonmammalian fauna from the Middle Pliocene Matjhabeng site, South Africa*. American Association of Physical Anthropologists annual meeting, March 18, 2009.

Molly M. McDonough, Adam W. Ferguson, Robert J. Baker, Monte L. Thies, **Patrick J. Lewis**, and Mohutsiwa Gabadirwe. *Molecular identification of small mammals from the Koanaka Hills (Nqcumtsa Hills) region, Ngamiland, Botswana*. Texas Academy of Science annual meeting, March 6, 2009.

Timothy L. Campbell and **Patrick J. Lewis**. *A Geographic Information Systems (GIS) analysis of the modern distributions of southern African Otomys (Rodentia: Otomyinae) with implications for Plio-Pleistocene paleoenvironmental reconstruction*. Texas Academy of Science annual meeting, March 6, 2009.

Adam W. Ferguson, Molly M. McDonough, Monte L. Thies, Mohutsiwa Gabadirwe, and **Patrick J. Lewis**. *Mammals of the Koanaka Hills (Nqcumtsa Hills) region, Ngamiland, Botswana*. Texas Society of Mammalogists annual meeting, February 26, 2009.

**Patrick J. Lewis**. *El Fayum: the search for primate fossils*. Invited lecture for the Piney Woods Gem and Mineral Society, January 20, 2009.

**Patrick J. Lewis**, Alicia M. Kennedy, Thomas Stidham, and Darryl J. de Ruiter. *Preliminary analysis of the small animal fauna from Matjhabeng, Free State, South Africa*. Texas Association of Biological Anthropologists annual meeting, November 14, 2008.

**Patrick J. Lewis**. *Renewed investigations of the Koanaka Hills deposit, western Ngamiland, Botswana*. Texas Association of Biological Anthropologists annual meeting, November 14, 2008.

Darryl J. de Ruiter, Juliet K. Brophy, **Patrick J. Lewis**, P. John Hancox, Keely B. Carlson, and Thomas Stidham. *Preliminary investigation of Matjhabeng, a Pliocene fossil locality in the Free State of South Africa*. Texas Association of Biological Anthropologists annual meeting, November 14, 2008.

**Patrick J. Lewis**, James Brink, Alicia M. Kennedy, and Timothy Campbell. *Analysis of the Florisbad microvertebrates*. Society of Vertebrate Paleontologists annual meeting, October 22, 2008.

Timothy Campbell, Justin Degrate, Justin Williams, and **Patrick J. Lewis**. *The tale of Tatera: paleoenvironmental reconstruction utilizing Geographic Information Systems (GIS)*. Society of Vertebrate Paleontologists annual meeting, October 22, 2008.

Julie Sculley, Eileen Johnson, and **Patrick J. Lewis**. *Preliminary analysis of the avifaunal assemblage from Roland Springs*. Society of Vertebrate Paleontologists annual meeting, October 22, 2008.

**Patrick J. Lewis**. *Of mice and men: recent field work in southern Africa*. Invited lecture for the Houston Gem and Mineral Society, August 26, 2008.

Julie A. Sculley, Eileen Johnson and **Patrick J. Lewis**. *Survey and analysis of the avifaunal community structure from Roland Springs Ranch of West Texas*. American Ornithologists' Union annual meeting, August 3, 2008.

**Patrick J. Lewis**, James S. Brink, Alicia M. Kennedy, and Timothy L. Campbell. *Examination of the Florisbad microvertebrates*. American Association of Physical Anthropologists annual meeting, April 10, 2008.

Timothy L. Campbell and **Patrick J. Lewis**. *The use of southern African Tatera (Rodentia: Gerbillinae) in paleoenvironmental reconstruction*. Texas Academy of Science annual meeting, March 6, 2008.

Sophia Aguayo, **Patrick J. Lewis**, and Scarlett Salem. *A comparison of isolated teeth and intact jaws for reconstructing paleoenvironment*. Texas Academy of Science annual meeting, March 6, 2008.

Scarlett Salem, Sophia Aguayo, and **Patrick J. Lewis**. *The utility of dental features in the diagnosis of Otomys (Rodentia: Muridae) species*. Texas Society of Mammalogists annual meeting, February 22, 2008.

Timothy L. Campbell and **Patrick J. Lewis**. *Southern African Tatera (Rodentia: Gerbillinae) identification and use in paleoenvironmental reconstruction*. Texas Society of Mammalogists annual meeting, February 22, 2008.

**Patrick J. Lewis**. *El Fayum: The search for primate fossils*. Invited lecture for the Houston Gem and Mineral Society, January 21, 2008.

**Patrick J. Lewis**, Eileen Johnson, and Steven Churchill. *The use of late Quaternary bison in assessing the impact of environment on bone robusticity*. Texas Association of Biological Anthropologists annual meeting, November 10, 2007.

**Patrick J. Lewis**, Eileen Johnson, and Alicia Kennedy. *Muskrat dental microwear and environment*. Texas Archaeological Society annual meeting, October 27, 2007.

Monte Thies and **Patrick J. Lewis**. *A description of new Pleistocene bat specimens from southern Africa*. Society of Vertebrate Paleontologists annual meeting, October 17, 2007.

James Cureton, **Patrick J. Lewis**, and Monte Thies. *A methodology for removing fossils from the Koanaka Hills deposit*. Society of Vertebrate Paleontologists annual meeting, October 18, 2007.

**Patrick J. Lewis**, Thomas Stidham, and Alicia Kennedy. *A Pleistocene fauna from the Koanaka Hills, Botswana: implications for regional paleoenvironment*. Society of Vertebrate Paleontologists annual meeting, October 17, 2007.

**Patrick J. Lewis**, Blythe Williams, and Alicia M. Kennedy. *Analysis of a small mammal fauna from the !Ncumsta Hills, western Ngamiland, Botswana*. American Association of Physical Anthropologists annual meeting, March 30, 2007.

Alicia M. Kennedy, **Patrick J. Lewis**, Blythe Williams, and Monte Thies. *A Middle Pleistocene fauna from Botswana: evidence for an environmental shift*. Texas Academy of Science annual meeting, March 2, 2007.

Alicia M. Kennedy, **Patrick J. Lewis**, Blythe Williams, and Monte Thies. *The role of rodents in reconstructing the Middle Pleistocene environment of Ngamiland, Botswana*. Texas Society of Mammalogist annual meeting, February 17, 2007.

Julie Sculley, Alicia M. Kennedy, **Patrick J. Lewis**, Blythe Williams, and Monte Thies. *The identification of fossil shrews from the !Ncumsta Hills, western Ngamiland, Botswana*. Texas Society of Mammalogist annual meeting, February 17, 2007.

**Patrick J. Lewis**, Eileen Johnson, Briggs Buchanan, and Steven Churchill. *The evolution of Bison bison: a view from the Southern Plains*. Texas Archeological Society annual meeting, October 20, 2006.

**Patrick J. Lewis**, Eileen Johnson, Briggs Buchanan, and Steven Churchill. *The impact of changing grasslands on bison*. International Council of Archaeozoology annual meeting, August 26, 2006.

Eileen Johnson and **Patrick J. Lewis**. *Taking the measure of a mark: exploring mark morphometrics and human behavior*. International Council of Archaeozoology annual meeting, August 28, 2006.

Nancy Barrickman, **Patrick J. Lewis**, Lee Berger, and Steven Churchill. *GIS at Plovers Lake: Database for spatial analysis and reconstruction of a Middle Stone Age site in South Africa*. Paleoanthropology Society annual meeting, April 24, 2006.

**Patrick J. Lewis**. *Morphological evolution and the role of environmental change*. Invited presentation for the Department of Anthropology, Sociology, and Social Work, Texas Tech University, March 9, 2005.

**Patrick J. Lewis**. *The search for anthropoid origins: new discoveries from El Fayum*. Invited presentation for the Bernard Price Institute for Paleontological Research, University of the Witwatersrand, Johannesburg, June 30, 2004.

**Patrick J. Lewis**, Christine M. Steininger, Nancy Barrickman, Lee R. Berger, and Steven Churchill. *A preliminary assessment of the microfaunal assemblage from the Coopers D deposit, Gauteng, South Africa*. American Association of Physical Anthropologists annual meeting, April 15, 2004.

Kristine A. Fleischer, Conor D. Hartman, **Patrick J. Lewis**, Christine M. Steininger, Lee R. Berger, and Steven Churchill. *Preliminary taphonomic analysis of the microfaunal assemblage from Coopers D deposit, Gauteng Province, South Africa*. American Association of Physical Anthropologists annual meeting, April 15, 2004.

**Patrick J. Lewis**. *Metapodial morphology and the evolutionary transition of late Pleistocene to modern bison*. Duke University Biological Anthropology Department seminar series, December 11, 2003.

Briggs Buchanan, **Patrick J. Lewis**, and Eileen Johnson. *Evolutionary trends in Southern Plains bison*. Plains Anthropologist annual meeting, October 25, 2002.

Steven Churchill, **Patrick J. Lewis**, Briggs Buchanan, and Eileen Johnson. *Changing bone robusticity in late Quaternary bison*. Plains Anthropologist annual meeting, October 25, 2002.

**Patrick J. Lewis**, Briggs Buchanan, and Eileen Johnson. *A multivariate approach to sexing bison metapodials*. Plains Anthropologist annual meeting, October 25, 2002.

**Patrick J. Lewis**, Briggs Buchanan, and Eileen Johnson. *Biogeographic variation in late Pleistocene and Holocene bison*. Society of Vertebrate Paleontologists annual meeting, October 12, 2002.

**Patrick J. Lewis**. *Expanding horizons: the new direction of paleoanthropology in South Africa*. Community presentation sponsored by the University of Evansville, October 9, 2002.

**Patrick J. Lewis**. *El Fayum: the search for primate fossils*. Invited lecture for the Anthropology Department at the University of Evansville, October 8, 2002.

**Patrick J. Lewis**, Eileen Johnson, and Maria Gutierrez. *Otariid morphometrics and sea mammal processing at La Olla 1 along the coast of the Argentine Pampas*. Society of American Archaeologists annual meeting, March 24, 2002.

**Patrick J. Lewis**, Briggs Buchanan, Eileen Johnson, Richard Strauss, and Laura Gruss. *Evolutionary change in bison from Lubbock Lake*. Society of American Archaeologists annual meeting, April 21, 2001.

**Patrick J. Lewis**. *The evolution of Holocene bison in North America: evidence from the postcrania*. Evolutionary Morphology Seminar Series, Duke University, April 5, 2001.

Briggs Buchanan, **Patrick J. Lewis**, Eileen Johnson, Richard Strauss, and Laura Gruss. *Morphological variation in Bison bison*. Plains Anthropologist annual meeting, October 20, 2000.

**Patrick J. Lewis**, Richard Strauss, and Elwyn L. Simons. *Morphological variation in the molars of the Fayum rodents*. Society of Vertebrate Paleontologists annual meeting, October 20, 2000.

Eileen Johnson, **Patrick J. Lewis**, and Richard Strauss. *A measured approach to marks on bone*. American Association of Physical Anthropologists annual meeting, April 15, 2000.

**Patrick J. Lewis** and Natalia Rybczynski. *A reevaluation of the muskrat lineage*. Society of Vertebrate Paleontologists annual meeting, October 20, 1999.

**Patrick J. Lewis** and Elwyn L. Simons. *Adaptations in Fayum primates*. American Association of Physical Anthropologists annual meeting, May 1, 1999.

Robert Paine and **Patrick J. Lewis**. *Discovery of an Archaic human burial*. American Association of Physical Anthropologists annual meeting, May 1, 1999.

**Patrick J. Lewis**, Eileen Johnson, and Maria Gutierrez. *The significance of muskrats in paleoenvironmental reconstruction*. The Canadian Anthropological Association annual meeting, May 6, 1998.

**Patrick J. Lewis** and Eileen Johnson. *Adaptation and muskrats at Lubbock Lake*. Plains Anthropological Society annual meeting, November 20, 1997.

Maria Gutierrez, **Patrick J. Lewis**, and Eileen Johnson. *Evidence of paleoenvironmental change from dental microwear patterns*. Plains Anthropological Society annual meeting, November 21, 1997.

**Patrick J. Lewis** and Eileen Johnson. *Climate and muskrats at Lubbock Lake*. Texas Archeological Society annual meeting, November 1, 1997.

**Patrick J. Lewis**. *The Spencer Collection: a private lithic collection*. Invited lecture for the Texas Tech Anthropological Society, February 21, 1997.

### Meeting Sessions Chaired:

*The Late Cainozoic*. Palaeontological Society of Southern Africa biannual meeting, August 8, 2010.

*Early and Formative Period archaeology in South America*. Society of American Archaeologists annual meeting, March 24, 2002.

### Teaching and Advising:

#### **Undergraduate Work Directed:**

McNair advisor for Babbie Suarez, current.

*The curation of fossils from the Koanaka Hills, Botswana.*

McNair advisor for Aurelia Mapps, 2013.  
*Variation in the skull of Gekko gecko using High Resolution CT.*

McNair advisor for Justen Adams, 2012.  
*Distribution patterns for the herpetofauna from Botswana using GIS.*

McNair advisor for Leroy Brooks, 2010.  
*The Pleistocene fauna from Cypress Creek and its implications for past environments.*

McNair advisor for Alicia Kennedy, 2008.  
*Analysis of a fossil herpetofauna from Southern Africa.*

Research Experience for Undergraduates advisor for Daniela Ortiz, summer 2010.  
*Analysis of dipnoan tooth plates from Driefontein, Free State Province, South Africa.*

Undergraduate research or independent study directed for 40+ SHSU students including:  
Lindsay Ashworth, Cristhian Cadena, Kristin Cossota, David Cordova, James Cureton, Laura Englehart, Kelly Forson, Justin Hooten, Hannah Johnson, Heather Johnson, Elizabeth Horstman, Dustin Jones, Alicia Kennedy, Jackie Knight, Micky Labbe, Kalyn Littlefield, Lauren Lowe, Harmony Lorentzen, Aurelia Mapps, Amber Massey, Emily Mathews, Rachel Martin, Grayson Means, Samantha Merrill, Kenneth Nobleza, Megan Oadra, Daniela Ortiz, Josh Owens, Samantha Osborne, Andres Polencia, Karen Quiroz, Pratima Rajput, Lori Ramagli, Katherine Robberson, Chad Ruprecht, Brandy Shannon, Sara Siedel, Babbie Suarez, Carling Urban.

**Successful External Undergraduate Research Grants Sponsored:**

**Micky Labbe**

*Evolution of Bison metapodial robusticity using microCT.*  
Sigma Xi, Grants-in-Aid of Research. Spring 2012.

**Heather Johnson**

*Analysis of Carbon Isotopes in Holocene Bison from the Southern Plains.*  
Sigma Xi, Grants-in-Aid of Research. Spring 2011.

**Daniela Ortiz**

*Analysis of dipnoan tooth plates from Driefontein, Free State Province, South Africa.*  
Joey Harrison Research Grant, Department of Biological Sciences, Sam Houston State University. Spring 2010.  
*Analysis of dipnoan tooth plates from Driefontein, Free State Province, South Africa.*  
Texas Academy of Science Research Grant. Spring 2010.

**Alicia Kennedy**

*Analysis of the modern and fossil herpetofaunas from the Koanaka Hills, Botswana.*  
Texas Academy of Science Research Grant. Spring 2009.  
*Preliminary analysis of the fossil herpetofauna, Koanaka Hills, Botswana.* Texas Academy of Science Research Grant. Spring 2007.  
*Preliminary analysis of the fossil herpetofauna from the Koanaka Hills, Ngamiland, Botswana.* Joey Harrison Research Grant, Department of Biological Sciences, Sam Houston State University. Spring 2007.  
*Excavation and analysis of the small mammal fauna from the Virginia Railway Cut site, Free State, South Africa.* Sigma Xi, Grants-in-Aid of Research. Fall 2006.

**Kelly Forson**

*Analysis and comparison of invertebrate faunas from cave sites in Botswana.* Sigma Xi, Grants-in-Aid of Research. Fall 2008.

**Graduate Work Directed:**

Katy Estill (Fall 2010-completed Summer 2012)

*Morphological variation in the crania of modern domestic rabbit breeds.*

Sophia Aguayo (Fall 2007-completed Fall 2013):

*Skeletal variation in a population of Comanche from the Southern High Plains.*

Joseph Reeve (Fall 2009-completed Fall 2012):

*Isotope variation in small mammals from the Koanaka Hills, Botswana.*

Rich Tutalo (Fall 2008-completed Fall 2012):

*Analysis of the modern owl accumulation from Koanaka Hills, Botswana* Timothy

Campbell (Fall 2007- completed Summer 2010):

*The use of GIS in reconstructing the distribution of small mammals through the Plio-Pleistocene of southern Africa.*

**Thesis Advisor (or Co-Advisor) For:**

Julie Sculley (Fall 2007-Fall 2011):

*An analysis of the isolated dental remains from Driefontein, South Africa.*

**Successful Graduate Research Grants Sponsored:**

**Joe Reeve**

*Isotopic analysis of rodent molars from the Koanaka Hills.* Paleontological Society, Lane Student Research Award. Spring 2010.

**Timothy Campbell**

*A Geographic Information Systems (GIS) analysis of the modern distributions of southern African Otomys (Rodentia: Otomyinae) with implications for Plio-Pleistocene paleoenvironmental reconstruction.* Texas Academy of Science Research Grant. Spring 2009.

*The utility of micromammal distributions for paleoenvironmental reconstruction in southern Africa.* Paleontological Society, Lane Student Research Award. Spring 2008.

*GIS as a tool in paleoenvironmental reconstruction in southern Africa.* Sigma Xi, Grants-in-Aid of Research. Fall 2007.

**Richard Tutalo**

*Variation in owl pellets from the Koanaka Hills, Botswana and the implications for regional paleoenvironmental reconstruction.* Sigma Xi, Grants-in-Aid of Research. Spring, 2009.

**Julie Scully**

*Analysis of avifauna from Roland Springs Ranch of West Texas.* Sigma Xi, Grants-in-Aid of Research. Fall 2008.

Independent study directed for 3 graduate students: Brandy Nunez, Tim Campbell, Irisa Arney.

**Teaching Experience:**

**Sam Houston State University**, Fall 2006-current.

Courses Taught: Biological Anthropology\*, General Zoology (Including honors section), Contemporary Biology (Including honors section), Senior Seminar, Vertebrate Development, Paleobiology\*, Human Anatomy, Human Evolution\*, Evolution (graduate course), Osteology\*



(graduate course), Science Seminar (Honors), Difficult Dialogues Seminar<sup>#</sup> (Honors), Journeys Seminar<sup>#</sup> (Honors), Beginnings Seminar<sup>#</sup> (Honors), TED Online Seminar<sup>#</sup> (Honors).

\*New course I developed for the Department of Biological Sciences.

<sup>#</sup>New seminar series I developed for the Honors College.

**Pfeiffer University**, Fall 2003-Summer 2006.

Courses Taught: Vertebrate Morphology and Development, Organic Evolution, Research Methods and Statistical Design, Introduction to Biology; Biological Anthropology, Quaternary Environments of South Africa, South Africa Seminar, Paleoenvironmental Field Techniques (Field school taught in South Africa and Botswana).

**Duke University**, Fall 1999-Summer 2003.

Instructor: Human Evolution, Introduction to Biological Anthropology.

Teaching Assistant: Introduction to Biological Anthropology Lab, Primate Anatomy Lab, Paleoanthropology Field School in South Africa.

**Texas Tech University**, Fall 1997-Spring 1998.

Instructor: Physical Anthropology Lab.

**Lab Experience:**

January 2007-current.

Curator of Paleobiology, Sam Houston State University Vertebrate Museum. Collection, preparation and curation of fossils and relevant modern comparative specimens and casts.

September 2003-August 2006.

Director of the Pfeiffer University Morphometrics Lab, Pfeiffer University Biology Department. Morphological research, specimen preparation and curation, leading student projects.

September 1996-August 1998.

Research Assistant, Museum of Texas Tech University, Anthropology Division, Director: Dr. Eileen Johnson. Research, report writing, drafting, conservation, artifact analysis.

September 1995-May 1996.

Student Assistant, Museum of Texas Tech University, Anthropology Division, Director: Dr. Eileen Johnson. Lake Meredith Project, Lake Allen Henry Project, Reese A.F.B. Project. Lithic analysis, conservation, research, drafting.

**Field Experience:**

August, 2009, 2010, 2011, 2012, 2013.

Co-Director (with Dr. John Hancox) of the Driefontein Project, Free State, South Africa. Survey and surface collection of early Triassic microvertebrate fossils.

May, 2010.

Co-Director (with Dr. Eileen Johnson, Dr. Ernie Lundelius, and Dr. Alston Thoms) of the Cypress Creek project, Katy, Texas. Survey and excavation of mid-Pleistocene fossils.

June-July 2007, 2008, 2009.

Director of the Koanaka Hills Project, Ngamiland Province, Botswana. Survey for Plio-Pleistocene fossils in cave infills, collection of modern vertebrates and invertebrates.

May-June 2007, 2008.

Co-Director (with Dr. Darryl de Ruiter, Texas A&M) of the Matjhabeng Excavation, Free State Province, South Africa. Excavation and analysis of an early Pliocene fauna.

June-July 2004.

Director of the Pfeiffer University Paleoenvironmental Field School, Transvaal region of South Africa. Excavation and survey for mammalian fossils, study of modern and late Quaternary environments and faunas.

May-June 2002, 2003.

Duke Paleoanthropology Field School, Transvaal region of South Africa. Field Directors: Dr. Steven E. Churchill and Dr. Lee Berger. Field assistant, excavation and survey for Quaternary fossils.

October-December 1999-2001, November 2004, October 2005.

Fayum Expedition, Egypt. Field Director: Dr. Elwyn L. Simons. Field assistant, excavation and survey for Eocene/Oligocene fossils.

July 2000.

Museum of Texas Tech University Tahoka Lake Project, Tahoka, Texas. Field Director: Dr. Eileen Johnson. Excavation, survey, topographic mapping.

June-July 1999.

Expedition to the Big Horn Basin of Wyoming. Field Director: Dr. Elwyn L. Simons. Survey and excavation of Eocene fossils.

May-June 1996-1999.

Museum of Texas Tech University San Jon Project, San Jon, New Mexico. Field Director: Dr. Eileen Johnson. Field assistant, excavation, survey, topographic mapping.

June-August 1996, June-July 1997, June-August 1998.

Lubbock Lake Landmark Research Project. Field Director: Dr. Eileen Johnson. Field assistant and volunteer coordinator, excavation, survey, logistics.

February 1998.

Yoakum County Burial Project, Yoakum County, Texas. Field Director: Dr. Robert Paine. Field assistant, mapping, photography, excavation of Archaic human burial, survey.

May 1996, 1997.

Museum of Texas Tech University Milnesand Project, Milnesand, New Mexico. Field Director: Dr. Eileen Johnson. Excavation, survey, topographic mapping.

September-October 1996.

Museum of Texas Tech Reese AFB Project in Playa Archaeology, Terry County, Texas. Field Director: Dr. Eileen Johnson. Excavation, survey, topographic mapping.

February 1995.

Field investigation and soil analysis for site 41SS52. Field Director: Dr. Grant Hall, Lab Director: Dr. Tom Lehman. Depositional environment and grain size analysis.

June-July 1994.

San Saba Regional Survey, Texas Tech University archaeology field school. San Saba County, Texas. Field Director: Dr. Grant Hall. Site survey, site recording, mapping, excavation.

May 1994.

Mission Santa Cruz de San Saba (41MN23), Second Testing Phase, Menard, Texas. Field Director: Dr. Grant Hall. Excavation.

### **Additional Work Experience:**

#### **U.S. Air Force, 1985-1993:**

Highest Rank: Sergeant.

Specialization: Meteorology.

Campaigns Supported: Operation Desert Storm, Operation Desert Shield.

Honorable discharge, May 1993.

**Notable Awards:** Southwest Asia Defense medal, Achievement medals (2), Good Conduct medals (2), Overseas Long Tour ribbon, Professional Military Academy Distinguished Graduate ribbon, Small Arms Expert Marksmanship ribbon.

**Professional Memberships:**

Society of Vertebrate Paleontologists.  
The Paleontological Society.  
Texas Academy of Science.  
Texas Archeological Society.  
Sigma Xi (on Grants-in-Aid council since 2009).  
Texas Association of Biological Anthropologist.  
Founding member, Scientific Director, 2007, Vice-President 2008.

**References:**

Dr. Eileen Johnson  
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Horn Professor of Museum Science  
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Dr. Steven E. Churchill  
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Box 90383  
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University of Texas at Austin  
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PO Box B, University Station  
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Dr. Darryl de Ruiter  
Department of Anthropology  
Texas A&M University  
College Station, Texas 77844  
(979) 845-4940; deruiter@tamu.edu