

# MICHAEL M. SHIPLEY

## CURRICULUM VITA

### EDUCATION AND PROFESSIONAL CERTIFICATIONS:

Oklahoma State University, Stillwater, Oklahoma, 1989-1993. *Ph.D. in Entomology (Insect Physiology)* in May, 1993.

Midwestern State University, Wichita Falls, Texas, 1983-1987. *M.S. in Biology* in August, 1987.

Midwestern State University, Wichita Falls, Texas, 1978-1983. *B.S. in Biology* in August, 1983.

### PROFESSIONAL EXPERIENCE:

*Professor of Biology*, August 2015 – Present. Midwestern State University, Wichita Falls, Texas.  
Departmental Chair - February 2020 – August 2022  
Graduate Coordinator – August 2022 - Present

*Associate Professor of Biology*, August 2007-August 2015. Midwestern State University, Wichita Falls, Texas.

*Assistant Professor of Biology*, August 2000-August 2007. Midwestern State University, Wichita Falls, Texas.

*Assistant Professor of Biology*, August 1994-August 2000. Howard Payne University, Brownwood, Texas.

*Laboratory Technician and Researcher*, August, 1993-August, 1994. Oklahoma State University (Department of Entomology), Stillwater, Oklahoma.

*Research Assistant in Insect Physiology*, June, 1989-May, 1993. Oklahoma State University (Department of Entomology), Stillwater, Oklahoma.

*Instructor of Biology*, January-December, 1988. Institut Teknologi MARA, Shah Alam, Selangor, Malaysia (sponsored by the Midwestern State University and the Texas International Education Consortium).

*Teaching Assistant in Biology*, June-December, 1987; August, 1983-August, 1985. Midwestern State University, Wichita Falls, Texas.

*Physical Science Teacher*, August, 1985-May, 1986. Wichita Falls High School, Wichita Falls, Texas.

## TEACHING RESPONSIBILITIES:

BIOL 1134, 1234 - Human Anatomy & Physiology I & II – Many Terms Fall, Spring, Summer  
CHEM 1203 - Introductory Chemistry II – Summer II 2001-2, 2004, 2010  
SCIE 2103 - Understanding Science, Engineering, and Technology – Spring & Fall 2016  
BIOL 1144 - General Zoology – Fall 2000, 2002, 2004; Spring 2009, Summer 2012  
BIOL 3064 - Principles of Biology II – Fall 2004-6, 2009  
BIOL 3104 - Fundamental Genetics – Fall 2007, 2009, 2011, 2013, 2015, 2017-23  
BIOL 3144 - Physiology – Spring 2001-23  
BIOL 4001 - Seminar in Biology – Spring 2020, 2022  
BIOL 4443 - Histology – Spring 2002-12; Fall 2012-20, 22  
BIOL 4524 - Animal Parasitology – Fall & Spring Terms since 2006  
BIOL 5001 - Discussions in Biology – Fall 2009-13, 21  
BIOL 5003 - Current Topics in Biology (Chemicals of Behavior) – Summer II 2003, Fall 2016, Summer I 2020  
BIOL 5011 - History of the Biological Sciences – Fall 2012-15, 2018-19, 21  
BIOL 5012 - Writing in the Biological Sciences – Spring 2012-14, 2016  
BIOL 5013 - Literature & History of the Biological Sciences – Fall 2001, 2003, 2005, 2007-8, 2010

## RESEARCH AND SCHOLARLY ACTIVITIES:

### PUBLICATIONS:

#### *Refereed Journals*

Shiple, M.M., J. Masuoka, D.B. McDonald, and J. Brink. (2017). Work Sampling of University Academics in STEM Departments With & Without a Graduate Programme. *World Trans. on Engng. And Technology Educ.*, 15 (1): 6-11.

Shiple, M.M., K. Wellington, A. Rao, T. Ritchie, and R.C. Vogtsberger. (2012). Fatty Acid Composition of a Burrowing Mayfly, *Hexagenia limbata* (Ephemeroptera: Ephemeridae), From a North Central Texas Lake. *J. Kansas Ento. Soc.*, 85 (3): 245-258.

Middleton, S.M., G.H. Broussard, M.M. Shipley, and R.C. Vogtsberger. (2007). Inventory of Three Beetle Assemblages (Coleoptera: Carabidae, Scarabaeoidea, Tenebrionoidea) From The Chihuahuan Desert Of West Texas. *Texas J. Sci.* 59 (1): 39-50.

Stangl, F.B. Jr., J.R. Goetze, M.M. Shipley, and D.A. Early. (2006) Characterization of the Dorsal Skin Gland of the Texas Kangaroo Rat, *Dipodomys elator* (Rodentia: Heteromyidae). *West. North Amer. Nat.* 66 (4): 462-472.

Shiple M.M, S.M. Middleton, and N.L. Passos. (2005). A Computerized Ecological Assessment of Families of Beetles From The Chihuahuan Desert of West Texas. *In* Computer Applications in Industry and Engineering (CAINE-2005) - Proceedings of the ISCA 18<sup>th</sup> Annual Conference, Honolulu, HI, November, 2005, pp 21-25.

Stangl, F.B., Jr., M.M. Shipley, J.R. Goetze, and C. Jones. (2005). Comments on the Predator-Prey Relationship of the Texas Kangaroo Rat (*Dipodomys elator*) and Barn Owl (*Tyto alba*). *Amer. Midland. Nat.* 153 (1): 135-141.

Bowman, A.S., R.D. Madden, M.M. Shipley, J.W. Dillwith, and J. R. Sauer. (1999). Attributes of the Tick Salivary Gland as a Prostaglandin-Secreting Organ. *In* Acarology IX Symposia, Vol. 2, G.R. Needham, R. Mitchell, D.J. Horn, and W. C. Welbourn, eds., Ohio Biological Survey, Columbus, Ohio, pp. 439-443.

Shipley, M.M., J.R. Sauer, J.L. McSwain, R.C. Essenberg, D.A. Forest, R.D. Hickey, and R.W. Barker. (1996). Indication of Dopamine D1 and D2 Receptors in the Salivary Glands of *Dermacentor variabilis* (Say) (Ixodidae). *In* Acarology IX Symposia, Vol. 1, G.R. Needham, R. Mitchell, D.J. Horn, and W. C. Welbourn, eds., Ohio Biological Survey, Columbus, Ohio, pp. 689-692.

Shipley, M.M., J.W. Dillwith, A.S. Bowman, R.C. Essenberg and J.R. Sauer. (1994). Distribution and Remodeling of Arachidonic Acid among Phospholipid Subclasses of Lone Star Tick Salivary Glands. *Insect Biochem. Mol. Biol.* 28, 531-535.

Bowman, A.S., J.R. Sauer, M.M. Shipley, R.D. Hickey, P.A. Neese and J.W. Dillwith. (1994). Origin, Accumulation and Mobilization of Salivary Prostaglandin Precursors in the Lone Star Tick. *Biochem. Soc. Trans.* 22: 92S.

Shipley, M.M., J.W. Dillwith, A.S. Bowman, R.C. Essenberg and J.R. Sauer. (1993). Changes in Lipid Composition of Tick Salivary Glands During Tick Feeding. *J. Parasitol.* 79: 834-842.

Bowman, A.S., J.R. Sauer, M.M. Shipley, C.L. Gengler, M.R. Surdick and J.W. Dillwith. (1993). Tick Salivary Prostaglandins: Their Precursors and Biosynthesis. *In* Host Regulated Developmental Mechanisms in Vector Arthropods, D. Borovosky and A. Spielman, eds., Vol. 3., IFAS Press, Vero Beach, Florida, pp. 169-177.

Shipley, M.M., J.W. Dillwith, R.C. Essenberg, R.W. Howard and J.R. Sauer. (1993). Analysis of Lipids in the Salivary Glands of *Amblyomma americanum* (L.): Detection of a High Level of Arachidonic Acid. *Arch. Insect Biochem. Physiol.* 23: 37-53.

Shipley, M.M., F.B. Stangl, R.L. Cate and C.S. Hood. (1990). Immuno-electrophoretic relationships among four species of Woodrats (Cricetidae: Neotoma). *Southwestern Naturalist* 35(2): 173-176. (Master of Science Thesis).

### **Book Chapter**

Sauer, J.R., A.S. Bowman, M.M. Shipley, C.L. Gengler, M.R. Surdick, J.L. McSwain, C. Luo, R.C. Essenberg and J.W. Dillwith. (1993). Arachidonate Metabolism in Tick Salivary Glands. *In* *Insect Lipids: Chemistry, Biochemistry, and Biology*, D.W. Stanley-Samuels and D.R. Nelson, eds., University of Nebraska Press, Lincoln, Nebraska, pp. 99-138.

### **PRESENTATIONS:**

Gardner, L., C.M. Watson and M.M. Shipley. The Physiological Effects of Cannabidiol Oil on Small Toads. Poster presented by Lauren Gardner at the Society for Integrative & Comparative Biology Annual Meeting, Austin, Texas, January, 2020.

Torres, T., C.M. Watson and M.M. Shipley. Fatty Acid Composition of Native Milkweed Species (*Asclepias*) of North Texas Made Available to Insect Predators. Poster presented by Tim Torres at the Society for Integrative & Comparative Biology Annual Meeting, Austin, Texas, January, 2020.

Armstrong, R., T. Torres, C.M. Watson and M.M. Shipley. Characterization of Fatty Acid Profiles of the Butterfly Weed (*Asclepias tuberosa*) and its Specialist Predator the Monarch Butterfly (*Danaus plexippus*). Poster presented by Reid Armstrong at the Society for Integrative & Comparative Biology Annual Meeting, Austin, Texas, January, 2020.

Gardner, L., C.M. Watson and M.M. Shipley. The Physiological Effects of Cannabidiol Oil on Small Toads. Poster presented by Lauren Gardner at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, November, 2019.

Kennedy, S. and M.M. Shipley. Enhancing Lake Water Quality With the Use of Floating Wetland Islands. Poster presented by Sarah Kennedy at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, April, 2019.

Nzima, N.Z., J. Kolape, M.M. Shipley and C.M. Watson. Chitinase Activity During Digestion of Insect Prey by the Ground Skink, *Scincella lateralis*. Poster presented by Mpathi Nzima at the Society for Integrative & Comparative Biology Annual Meeting, Tampa, Florida, January, 2019.

Torres, T., R. Ruiz, C.M. Watson and M.M. Shipley. Assimilation of Fatty Acids Present in Milkweed Species (*Asclepias*) Made Available to Insect Predators. Poster presented by Tim Torres at the Society for Integrative & Comparative Biology Annual Meeting, San Francisco, California, January, 2018.

Cannedy, J. P., M.M. Shipley and C.M. Watson. The Effects of Nicotine Concentration on the Physiology of the Tobacco Hornworm, *Manduca sexta*. Poster presented by Paige Cannedy at the Society for Integrative & Comparative Biology Annual Meeting, San Francisco, California, January, 2018.

Aleman, S., D.B. McDonald and M.M. Shipley. Aquaponics: Optimizing Filtration for Aquaponics Systems. Poster presented by Sean Aleman at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, April, 2017.

Shipley, M.M. My Career in Academics: What a Trip It's Been. Keynote address at Alpha Chi Induction Ceremony, Midwestern State University, Wichita Falls, Texas, November, 2016.

Krogman, W., M.M. Shipley and C.M. Watson. Adaptive Advantage for the Ontogenetic Transition from Conspicuous Colored Tails to Cryptic Colored Tails in the Common Five-lined Skink (*Plestiodon fasciatus*). Poster presented by Will Krogman at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, April, 2016.

Torres, T., Ramos-Armas F., M.M. Shipley and C.M. Watson. Quantitative Analysis of Fatty Acids Present within the Tropical Milkweed, *Asclepias curassavica*. Poster presented by

Tim Torres and Francisco Ramos-Armas at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, April, 2016.

Statham, W., S. Wang, Y. Guo and M.M. Shipley. Aquaponics: A Form of Sustainable Farming. Poster presented by Will Statham at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, April, 2016.

Shipley, M.M. Lessons Learned from a Successful S-STEM Grant. Paper presented at the Society of Engineering Science 52<sup>nd</sup> Annual Meeting, College Station, Texas, October 2015.

Herzog, E., E. Savage, D.B. McDonald and M.M. Shipley. Analysis of Predator-Prey Interactions in Resource Stressed Environments with Extreme Changes in Drought Conditions. Poster presented by Emily Herzog and Eric Savage at the Undergraduate Research and Creativity Forum, Midwestern State University, Wichita Falls, Texas, April, 2015.

Shipley, M.M. An Iconic Relationship: Prickly-Pear Cactus and Cochineal Scale Insect. Lipid Composition Analysis of Host and Parasite. Paper presented at Integrated Biology Workshop V, Wichita Falls, Texas, September 2014.

Torres, A., C. James, C. Buerger, D.B. McDonald and M.M. Shipley. Predator-Prey Interaction of Wolf Spider (Lycosidae) and Cricket (Gryllidae) in a Controlled Extreme Urban Environment. Poster presented by Angelica Torres, Christopher James, and Collin Buerger at the 117<sup>th</sup> Annual Texas Academy of Science Meeting, Galveston, Texas, March, 2014.

Shipley M.M. What's For Dinner? Fatty Acid Composition of the Cochineal Scale Insect: a Fluid Feeder of Prickly Pear Cactus. Poster presented at the 4th Annual Scholarship Colloquium, Midwestern State University, Wichita Falls, Texas, April, 2013.

Patel, R. and M.M. Shipley. Lipid and Fatty Acid Composition of Prickly Pear Cactus, *Opuntia ficus-indica*. Poster presented by Rinkal Patel at the 4th Annual Scholarship Colloquium, Midwestern State University, Wichita Falls, Texas, April, 2013. *Winner of Top Student Poster Presentation.*

Shipley, M.M. Energy Reserves in Mayfly Naiads and Adults (*Hexagenia limbata*) From a North Central Texas Lake. Paper presented at the 116<sup>th</sup> Annual Texas Academy of Science Meeting, Kerrville, Texas, March, 2013.

Patel, R. and M.M. Shipley. Lipid and Fatty Acid Composition of Prickly Pear Cactus (Genus *Opuntia*) Fruits and Pads. Poster presented by Rinkal Patel at the 116<sup>th</sup> Annual Texas Academy of Science Meeting, Kerrville, Texas, March, 2013.

Falade, J., J. Fadow, D.B. McDonald, and M.M. Shipley. Towards a Novel Engineered Solution for the Quantification and Modeling of Predator-Prey Interactions in a Captive Terrestrial Environment. Poster presented by Joseph Falade at the 116<sup>th</sup> Annual Texas Academy of Science Meeting, Kerrville, Texas, March, 2013.

Hughes, C. and M.M. Shipley. An Analysis of Nutritional Effects of Commercially Available Garden Topsoil Additives on Fatty Acid Composition in the Beneficial Soil Aerating

Earthworm, *Lumbricus terrestris*. Poster presented by Candace Hughes at the 3rd Annual Scholarship Colloquium, Midwestern State University, Wichita Falls, Texas, April, 2012.

Corbette, F., J. Porter and M.M. Shipley. Lipid Composition of Whole Body Extracts of Cochineal Insect (*Dactylopius coccus*) and Prickly Pear Cactus Pads (*Opuntia phaeacantha*). Poster presented by Fabiola Corbette and Jadrian Porter at the 3rd Annual Scholarship Colloquium, Midwestern State University, Wichita Falls, Texas, April, 2012.

Corbette, F., J. Porter and M.M. Shipley. Lipid Composition of Whole Body Extracts of Cochineal Insect (*Dactylopius coccus*) and Prickly Pear Cactus Pads (*Opuntia phaeacantha*). Paper presented by Fabiola Corbette and Jadrian Porter at the 115<sup>th</sup> Annual Texas Academy of Science Meeting, Alpine, Texas, March, 2012.

Swanston, J. and M.M. Shipley. Analysis of Omega-3 Fatty Acids From Commercially Available Fish Oil, Farm-Raised and Wild-Caught Fish, and Other Sources. Poster presented by Junior Swanston at the 113<sup>th</sup> Annual Texas Academy of Science Meeting, Stephenville, Texas, March, 2010.

Mitchell, C. and M.M. Shipley. Lipid Profiles of Four Families of Rodents: Heteromyidae, Muridae, Sciuridae, and Geomyidae. Paper presented by Chris Mitchell at the 112<sup>th</sup> Annual Texas Academy of Science Meeting, Junction, Texas, March, 2009.

Wellington, K.M., R.C Vogtsberger, and M.M. Shipley. Fatty Acid Composition In Mayfly (*Hexagenia limbata*) Naiads And Adults From Lake Arrowhead, Texas. Paper presented by Kristin Wellington at the 110<sup>th</sup> Annual Texas Academy of Science Meeting, Waco, Texas, March, 2007.

Todd, J., R.C Vogtsberger, and M. M. Shipley. Light Trap Survey Of The Family Psychodidae (Diptera) In Wichita Falls, Texas. Paper presented by James Todd at the 110<sup>th</sup> Annual Texas Academy of Science Meeting, Waco, Texas, March, 2007.

Shelton, C., M.M. Shipley, C. Hansen, and P. Buzas-Stephens. Statistical Analysis Of Physical Characteristics Of Lower Permian Spiraled Heteropolar Bromalites From Archer County Texas. Paper presented by Christen Shelton at the 110<sup>th</sup> Annual Texas Academy of Science Meeting, Waco, Texas, March, 2007.

Shipley M.M, S.M. Middleton, and N.L. Passos. A Computerized Ecological Assessment of Families of Beetles From The Chihuahuan Desert of West Texas. Paper Presented at the 18<sup>th</sup> Annual Conference on Computer Applications in Industry and Engineering (CAINE-2005), Honolulu, HI, November 9-11, 2005.

Shipley, M.M., F.B. Stangl, Jr., J.R. Goetze, and D. Early. Histology, Sexual Dimorphism, and Seasonal Variation of the Dorsal Skin Gland in *Dipodomys elator*. Paper presented at the 85<sup>th</sup> Annual American Society of Mammalogists Meeting, Springfield, Missouri, June, 2005.

Ichikawa, W., C. Reeve, and M.M. Shipley. Fatty Acid Composition of Adipose Tissue Among Two Species of Ground Squirrels, Genus *Spermophilus*. Poster presented by Wataru Ichikawa at the 108<sup>th</sup> Annual Texas Academy of Science Meeting, Edinburg, Texas, March, 2005.

Middleton, S.M., G.H. Broussard, and M.M. Shipley. An Ecological Assessment of Three Families of Coleoptera From the Chihuahuan Desert of West Texas. Poster presented by Stephanie Middleton at MSU Science Research Symposium, April, 2004.

Middleton, S.M., G.H. Broussard, and M.M. Shipley. An Ecological Assessment of Three Families of Coleoptera From the Chihuahuan Desert of West Texas. Poster presented by Stephanie Middleton at the 107<sup>th</sup> Annual Texas Academy of Science Meeting, Kerrville, Texas, March, 2004.

Shipley, M.M., J.R. Sauer, J.L. McSwain, R.C. Essenberg, D.A. Forest, R.D. Hickey, and R.W. Barker. Indication of Dopamine D1 and D2 Receptors in the Salivary Glands of *Dermacentor variabilis* (Say) (Ixodidae). Poster presented at IXth International Congress of Acarology Meeting, Columbus, Ohio, June, 1994.

Bowman, A.S., J.R. Sauer, M.M. Shipley, R.D. Hickey, P.A. Neese and J.W. Dillwith. Origin, Accumulation and Mobilization of Salivary Prostaglandin Precursors in the Lone Star Tick. Poster presented by Alan Bowman at the 649<sup>th</sup> Biochemical Society Meeting, London, England, December, 1993.

Sauer, J.R., A.S. Bowman, M.M. Shipley, R.C. Essenberg and J.W. Dillwith. Arachidonate Metabolism in Tick Salivary Glands. Paper presented by John Sauer at First International Congress of Vector Ecology, San Diego, California, October, 1993.

Shipley, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Modifications in Fatty Acid Composition of Tick Salivary Glands in Response to Feeding. Poster presented at Southwestern Association of Parasitologists Annual Meeting, Lake Texhoma, Oklahoma, April, 1992.

Shipley, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Changes in Lipid Composition of Tick Salivary Glands During Tick Feeding. Paper presented at Southwestern Branch of Entomological Society of America Annual Meeting, Tulsa, Oklahoma, February, 1992.

Shipley, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Distribution of Arachidonic Acid in the Salivary Glands of Lone Star Ticks of Various Feeding Stages. Paper presented at Entomological Society of America National Meeting, Reno, Nevada, December, 1991.

Sauer, J.R., J.W. Dillwith, M.M. Shipley, M.R. Surdick, J.L. McSwain, J.M.C. Ribeiro and R.C. Essenberg. Role of Lipid Metabolites in Tick Salivary Glands. Paper presented by John Sauer at Gordon Research Conference, New Hampshire, July, 1991.

Shipley, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Occurrence of Arachidonic Acid in Tick Salivary Glands. Poster presented at Southwestern Association of Parasitologists Annual Meeting, Lake Texhoma, Oklahoma, April, 1991.

Shipley, M.M. What Makes a Tick Tick?: Control of Salivary Gland Secretion. Invited speaker at Biology Club Meeting, Midwestern State University, Wichita Falls, Texas, March, 1991.

Shiple, M.M., M.R. Surdick, J.R. Sauer and J.W. Dillwith. Arachidonic Acid in Tick Salivary Glands. Poster presented at Second Annual Graduate Research Symposium, Stillwater, Oklahoma, February, 1991.

Shiple, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Occurrence and Metabolism of Arachidonic Acid in Tick Salivary Glands. Poster presented at Entomological Society of America National Meeting, New Orleans, Louisiana, December, 1990.

Shiple, M.M., M.R. Surdick, J.R. Sauer and J.W. Dillwith. Arachidonic Acid in Tick Salivary Glands. Poster presented at West Central States Biochemistry Conference, Stillwater, Oklahoma, October, 1990.

Shiple, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Analysis of Lipid Components in Tick Salivary Glands. Paper presented at Southwestern Association of Parasitologists Annual Meeting, Lake Texhoma, Oklahoma, April, 1990.

Shiple, M.M., J.W. Dillwith, R.C. Essenberg and J.R. Sauer. Analysis of Lipid Components in Tick Salivary Glands. Poster presented at Entomological Society of America National Meeting, San Antonio, Texas, December, 1989.

#### GRANTS:

"Physiological and Lipid Analysis of Tropical Milkweed and Milkweed Bug". Co-authored with Charles Watson; funded for \$7,495 by the MSU University Grant Committee, Fall 2015.

"SOAR: Scholarship Opportunities for Academic Recognition" PI of S-STEM grant funded for \$606,000 by the National Science Foundation, Spring 2015.

"Video Surveillance of a Predator (Wolf Spiders) and Prey (Field Crickets) in a Controlled Environment" Co-authored with Dale McDonald; funded for \$4,996.95 by the MSU University Grant Committee, Spring 2014.

"Fatty Acid Composition of the Cochineal Scale Insect *Dactylopius spp.*: A Fluid Feeder of Cactus". Funded for \$2800.00 by the MSU University Grant Committee, Spring 2012.

"Lipid Analysis From Naiads and Adults of a Burrowing Mayfly, *Hexagenia limbata*". Co-authored with Roy Vogtsberger; funded for \$980.94 by the MSU College of Science & Mathematics Faculty Research Committee, Fall 2006.

"Applying Data Mining to Predict Ecological Information on Families of Beetles from the Chihuahuan Desert of West Texas". Co-authored with Nelson Passos and Terry Griffin; funded for \$4,778.00 by the MSU University Grant Committee, Spring 2006.

"New Capillary Column and Syringe Filters for use in Gas Chromatography: Identification of Organic Compounds". Co-authored with Chris Hansen; funded for \$553.00 by the MSU College of Science & Mathematics Faculty Research Committee, Fall 2005.



“Undergraduate Research Opportunities and Summer Workshop”. A multi-disciplinary effort senior-authored by Dr. Magaly Rincon-Zachary; funded for \$9000.00 by the MSU Office of the Associate Provost, Summer 2005-6.

“Comparison of Milk Lipid Composition from Various Mammalian Groups”. Funded for \$3611.85 by the MSU University Grant Committee, Spring 2004.

“Computerized Data Acquisition Systems in the Physiology Laboratory”. Funded for \$13,559.00 by the MSU Joint Admissions Medical Program (JAMP), Fall 2003.

“Cyclic AMP Signaling Mechanisms in Tick Salivary Glands”. Funded for \$2328.60 by the MSU College of Science & Mathematics Faculty Research Committee, Spring 2002.

## **SERVICE:**

### *UNIVERSITY:*

#### ***University-wide***

Core Curriculum Committee (Scribe) – August 2012 – May 2017

COSM Tenure & Promotion Committee – August 2012 – May 2014; August 2017 – 2022 (Chair 2013-14; 2017-18).

Radiological Science Advisory Committee – August 2000 – Present

Admissions Committee – August 2004 – August 2013

Faculty Sponsor of Midwestern Indian Student’s Association (MISA) – August 2012 – August 2019

Ad Hoc Freshman Seminar Committee – September 2013 – March 2014

University Tenure and Promotion Committee – August 2008 – May 2012

Graduate Dean Search Committee – April – May 2008

Faculty Grievance Due Process Committee representative for the College of Science and Mathematics, August 2004 – August 2006

Human Subjects Review Committee representative for the College of Science and Mathematics, June 2003 – June 2005

Faculty Senate representative for the College of Science and Mathematics, August 2002 – August 2004

Enrollment Management Council (Rep. for the Faculty Senate), August 2003 – August 2004

#### ***Departmental***

Library Liaison to the Biology Department  
Advisor for 7-12 Science Education  
Faculty Sponsor for Biology Club 2000-2013

Major's Fair contact for the Biology Department 2002-2013  
Biology Faculty Ad-Hoc Committees – For 5 faculty members  
Biology SiteMaster – 2002-2006  
Regular attendance at Mustang Rally, Family Day, and Other Events  
Current Undergraduate Advisees: 25  
Served on several Graduate Advisory Committees  
Graduate Advisees:

- Reid Armstrong, Marcello Campolina, Dalton Penick – Current
- Stephanie Middleton – Graduated December 2003. Thesis Topic “An Ecological Assessment of Three Families of Coleoptera From the Chihuahuan Desert of West Texas”.
- Catherine Parker (Co-advisor with Fred Stangl) – Graduated December 2003. Thesis Topic “Dental Variation in Southern Plains Populations of the Prairie Vole, *Microtus ochrogaster* (Rodentia: Muridae)”.
- James Todd – Graduated December 2006. Thesis Topic “Light Trap Survey of the Family Psychodidae (Diptera) in Wichita Falls, Texas”.
- Christen Shelton – Graduated December 2006. Thesis Topic “Investigation of Biomarkers and Stastical Analysis of Lower Permian Spiraled Heteropolar Bromalites From Archer County, Texas”.
- Chris Mitchell – Graduated August 2009. Thesis Topic “Lipid Profiles of Four Families of Rodents: Heteromyidae, Muridae, Sciuridae, and Geomyidae”.
- Johnica Fetsch – Graduated May 2012. Thesis Topic “A Comparative Analysis of Elemental Content in Bones of Chelonians”.
- Alexandria Gilmore – Graduated May 2013. Thesis Topic “Northern Expanse of the Range of *Leishmania mexicana*: A Survey of the Vector and Reservoir Species to Determine the Presence or Absence of the Protozoan Parasite in the Texas Counties of Archer, Clay, and Wichita”.
- Rinkal Patel – Graduated May 2013. Thesis Topic “Lipid and Fatty Acid Composition of Prickly Pear Cactus, *Opuntia ficus-indica*”.
- Candace Hughes – Graduated August 2018. Thesis Topic “An Investigation of Cellulose Degradation by the Gut Microbiome of the Grass-Eating Termite, *Gnathamitermes perplexus*, of Wichita and Archer Counties of North Texas”.
- Tim Torres – Graduated May 2021. Thesis Topic “Occurrence and Identification of Fatty Acids in Species of Milkweed (*Asclepias*) from North Texas and their Insect Specialists”.

#### PROFESSIONAL:

Texas Academy of Science (Vice Chair of Chemistry & Biochemistry Section – 2009-2010;  
Chair of Chemistry & Biochemistry Section – 2010-2011  
Kansas Entomological Society  
Entomological Society of America  
American Arachnological Society  
Texas Association of College Teachers  
Beta Beta Beta (Biological Honor Society)  
Project Kaleidoscope

Contributor to *Meeting of the Minds – Seminar for Region 9 Science Teachers*: Spring 2004-5, 2007.

**COMMUNITY:**

Science Fair Judge (MSU and Region 9) – 2007, 2009, 2016, 2022  
Science Fair Workshop for High School Students – 2020-2023  
Altrusa International – Friend of Altrusa since 2001  
Contributor to Wichita Falls Media:  
Edible Insects, October 2004 (KFDX Channel 3)  
Killer Bees, August 2004 (KAUZ Channel 6)  
Flea Outbreak, June 2004 (KFDX Channel 3)  
Chiggers, May 2004 (KAUZ Channel 6)  
SARS Outbreak, February 2003 (KAUZ Channel 6)  
Human Cloning, January, 2002 (Wichita Falls Times & Record News)  
Clean Up Wichita Falls – Fall 2009, 2011  
Great Day of Service – 2009, 2011, 2013.

**AWARDS AND HONORS:**

Biology Faculty of the Year - Biology Club, Beta Beta Beta, and Pre-Professional Clubs - 2004; 2008; 2009.

Honored Service Recipient, International Student Association, Oklahoma State University, 1993, 1995.

Second Place at Southwestern Branch of Entomological Society of America Meeting, Linnean Games, 1992.

David Becker Award, Southwestern Association of Parasitologists, 1990.