

## **APPENDIX E Natural Science Faculty Vitae**

### **BIOLOGY FACULTY VITAE**

**Edmond J. Bacon**

**Jessie C. Chappell**

**Karen P. Fawley**

**Marvin W. Fawley**

**John L. Hunt**

**Glenn J. Manning**

**Lauren A. Morgan**

**Christopher G. Sims**

**Mary J. Stewart**

### **CHEMISTRY FACULTY VITAE**

**J. Morris Bramlett (Dean)**

**Jeff Taylor**

**Jinming Huang**

**Andrew Williams**

**Kelley Sayyar (with ESCI)**

**Susan Hatfield**

### **EARTH SCIENCE FACULTY VITAE**

**Jim Edson (Retired May 2015)**

**Kelley Sayyar (formerly CHEM)**

### **PHYSICS FACULTY VITAE**

**Ross Burrows**

**Jared Gavin**

**Juan Serna (Resigned 2015)**

## CurriculumVita Edmond J. Bacon

**Interests:** Science Education, Ecology, Ichthyology, Marine Biology, and Zoology

### **Post Secondary Education:**

Southern Arkansas University, B.S.E.  
University of Arkansas, M. S. , Zoology  
University of Louisville, Ph.D. Biology  
Oregon State University  
University of Southern Mississippi

### **Employment at Institutions of Higher Education:**

***University of Arkansas-Monticello, 1974 – 2007; 2008 - 2015***

Courses Taught: Aquatic Biology, Introductory Biology, Ecology, General Zoology, Ichthyology, Invertebrate Zoology, Marine Biology, and Principles of Biology  
Non-Teaching Positions and Committees at UAM: Chair of the Pre-professional Advisory Committee, Chair of General Education Committee, Chair of Program Review Committee, Scholarship Committee, Coordinator for the Gulf Coast Research Laboratory, Chairman of the Scientific Review Committee for the Southeast Regional Science Fair, Radiation Safety Office of the UAM Campus, Coordinator of the Saline River Stream Team, Director of the Turner Neal Museum.

### **Service and Professional Recognition**

Scientific Policy Advisory Committee for the  
Arkansas Department of Pollution Control & Ecology, 1980 - 1986  
Member of UAM Foundation Fund Board, 1984-1986; 2006 - 2014  
Radiation Safety Officer at UAM, 1980 - 2000  
Gulf Coast Research Lab Coordinator, 1986 - 2015  
Vice-President of the Arkansas Academy of Science, 1985  
President of the Arkansas Academy of Science, 1986

Member of Acid Deposition Team to Europe, 1986  
Associate Editor for Arkansas Academy of Science, 1990 - 2006  
Visiting Professor at the Gulf Coast Research Lab, 1994 - 1996  
Consultant to the Arkansas Game & Fish Commission, 1996 - 2012  
Consultant to the Arkansas Department of Transportation, 1996- 2000  
Saline River Stream Team Coordinator, 2000 - 2015  
Scientific Advisory Committee on Environmental Policy

### **University Service:**

Chairman of the Department of Natural Sciences, 1981-1985  
Member of the UAM Foundation Fund Board, 1984-86; 2006 - 2014  
Director of Pre-medical Sciences, 1981-1985  
Radiation Safety Office for the Campus, 1980-2000  
Gulf Coast Research Laboratory Coordinator, 1986-2015  
Chancellor's Senior Faculty Advisory Group, 1988-1994  
Chairman of the General Education Committee, 1985-1988  
Chairman of the Program Review committee, 1988  
Chairman of Dept. of Natural Sciences Scholarship Committee  
Founder of the Biology Club, 1987  
Sponsor of the Biology Club, 1987-2015  
Chairman of the Jack Kent Cooke Scholarship Committee  
UAM Chancellor Search Committee, 2014 – 2015  
Director of the Turner Neal Museum

### **COMMUNITY SERVICE:**

Member of the Monticello Country Club Board, 1993-1996  
President of the Monticello Country Club Board, 1996  
Member of the First United Methodist Church Board, 1983-2005  
Trustee of the Wesley Foundation, 1990-2001  
Volunteer Assistant for the ESL Program  
Volunteer for the Justice for Our Neighbors Program  
AGFC Stream Team Coordinator  
Director of the Turner Neal Museum

## **Honors and Awards:**

Alpha Chi Teacher of the Year, 2003 and 2007, University of Arkansas at Monticello  
UAM Faculty Excellence Silver Award Winner, 1994

## **Professional Organizations:**

Arkansas Academy of Science  
Arkansas Entomological Society  
American Fisheries Society

## **Professional Publications:**

- Bacon, E. J. 1978. Primary productivity, water quality, and limiting factors in Lake Chicot. Arkansas Water Resources Research Center Publ. No. 56. 99 pp.
- Bacon, E. J. 1981. Productivity of plants in lakes and streams in southern Arkansas. Discovery Univ. of Ark. Agr. Exp. Sta. Bull., pp. 13-14.
- Bacon, E. J. 1983. The effects of forest harvest on water quality and aquatic life (Phase I). Arkansas Water Resources Research Center Publ. No. 100. 65 pp.
- Bacon, E. J. and S. E. Neff. 1974. Seasonal changes in water quality and primary productivity in Doe Valley, Lake. Water Resources Res. Rept. No. 72, 107 pp.
- Bacon, E. J. and S. E. Neff. 1982. Bottom fauna in Doe Valley Lake, Meade County, Kentucky. Trans. of Kentucky Acad. of Sci. 43(3-4):158-167.
- Cochran, B., E. J. Bacon, and G. H. Harp. 1993. Larval chironomids of the St. Francis sunken lands in Arkansas. Ark. Acad. Sci. Proc. 47:31-33.
- Cooper, C. M. and E. J. Bacon. 1980. Effects of suspended sediments on primary productivity in Lake Chicot. Proc. of the Symposium of Surface Water Impoundments. ASCE. Pp. 1357-1367.

- Cooper, C. M., E. J. Bacon, and J. R. Ritchie. 1984. Biological cycles in Lake Chicot, Arkansas. pp. 49-61 In J. F. Nix and F. R. Schiebe. Eds. Limnological Studies in Lake Chicot, Arkansas. Arkansas Lakes Symposium. 146 pp.
- Miller, A. C., D. C. Beckett, and E. J. Bacon. 1989. The habitat value of aquatic macrophytes for macroinvertebrates: benthic studies in Eau Galle Reservoir, Wisconsin. Proc. 23<sup>rd</sup> Annual Meeting Aquatic plant Control Research Program, US Army Engineer Waterways Experiment Station, Vicksburg, MS, pp 190-201.
- Miller, A. C., D. C. Beckett, C. M. Way, and E. J. Bacon. 1989. The habitat value of aquatic macrophytes for macroinvertebrates. Aquatic plant Control Research Program, Technical Report A-89-3, US Army Engineer Waterways Experiment Station, Vicksburg, MS, 66 pp.
- Miller, A. C., E. J. Bacon, and D. C. Beckett. 1990. The habitat value of aquatic macrophytes in lentic and lotic habitats. Aquatic Plant Control Research Program Research Program, Technical Report A-90-3, US Army Engineer Waterways Experiment Station, Vicksburg, MS, 66 pp.
- Miller, A. C. and E. J. Bacon. 1991. The habitat value of aquatic macrophytes for macroinvertebrates in the Saline River. Aquatic Plant Control Research Program, Technical Report A-91-3, US Army Engineer Waterways Experiment Station, Vicksburg, MS, 66 pp.
- Lockhart, B. R., J. E. Kellum, L. C. Thompson, P. A. Tappe, R. C. Weih, Jr., E. J. Bacon, H. O. Liechty. 1998. Impacts of reproduction cutting methods in a bottomland hardwood ecosystem: a multi-disciplinary study. The ASB Bulletin: 45: 84-85.

**RESEARCH GRANTS: \$335,000**

<u>Grant Title</u>	<u>Funding Agency</u>	<u>Funding</u>
Water Quality and Primary Productivity in Doe Valley Lake	Office of Water Research and Technology	\$ 20,000
Environmental Assessment of the Paintsville-Yatesville Basins	U. S. Army Corps	\$ 50,000
Primary Productivity, Water Quality, and Limiting Factors in Lake Chicot	Office of Water Research and Technology	\$ 20,000
Primary Productivity in Lake Chicot	USDA/SEA	\$ 18,500
Effects of Forest Harvest on Water Quality and Aquatic Life	Office of Water Research and Technology	\$ 52,500
Habitat Value of Aquatic Macrophytes in the Saline River	U. S. Army Corps Waterways Experiment Station	\$ 50,000
Habitat Value of Aquatic Macrophytes in Lake Marion, South Carolina	U. S. Army Corps Waterways Experiment Station	\$ 92,000
Oats Creek Watershed Study	Ark. Dept. of Transportation	\$ 16,000
Lake Greeson Project	Ark. Game & Fish. Comm.	\$ 4,000
Pittman Island Study	School of Forest Resources	\$ 10,000
Water Quality In the Saline River	UAM Faculty Research	\$ 1,800

**EDUCATIONAL GRANTS: \$ 57,500**

<u>Title</u>	<u>Funding Agency</u>	<u>Funding</u>
AEGIS Environmental Science	Ark. Dept. of Education	\$ 24,500
AEGIS Ecological Analysis of Aquatic Habitats	Ark. Dept. of Education	\$ 12,000
AEGIS Ecological Analysis of Aquatic Habitats	Ark. Dept. of Education	\$ 12,000
Field Course in Natural History	U.S. Govt. Title III	\$ 2,000
Marine Invertebrates of the Gulf of Mexico	U. S. Govt. Title III	\$ 6,000
Ecology of Coral Reefs	U. S. Govt. Title III	\$ 1,000
Ecology of Caribbean Reefs	UAM Centennial Circle Fund	\$ 4,400

**High School and Undergraduate Research Projects:**

Rymes, L. and M. Temple. 2006. Saline River Water Quality Survey (co-directed with Dr. Morris Bramlett, internally funded by UAM Research Grant)

Lockwood, J. 2010. Effects of ATVS on Mussels in the Saline River. [Outstanding Undergraduate Oral Presentation and Scientific Paper at the 2010 Alpha Chi Regional Meeting in San Diego, CA]

Bacon, J. 1994. Effects of Stream Velocity on Macroinvertebrates in the Little Missouri River. 1994. Best of Show at the Arkansas Science and Engineering Fair, Exhibit at the International Science and Engineering Fair in Hamilton, Ontario

Bacon, J. 1995. Effects of Stream Velocity on Macroinvertebrates in the Little Missouri River. Second Place at the Arkansas Science and Engineering Fair, Exhibit at the International Science and Engineering Fair in Tucson, Arizona.

Bacon, J. 1996. Habitat Value of Plants and Substrates in the Saline River. Third Place at the Arkansas Science and Engineering Fair, Exhibit at the International Science and Engineering Fair in Louisville, Kentucky.

Bacon, P. 2002. Morphology and Feeding Strategies of Asplanchna priodonta. First Place at the Southeast Arkansas Regional Science Fair, Honorable Mention at the Arkansas Science and Engineering Fair.

Claycomb, A. 2012. Water Quality in the Little Missouri River Basin.



## CURRICULUM VITAE

MS JESSIE C. CHAPPELL  
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Monticello, Arkansas 71655  
e-mail: [chappellj@uamont.edu](mailto:chappellj@uamont.edu)  
870-866-8050(cell)

### Experience

- 1997-Present      Laboratory Instructor for the University of Arkansas at Monticello(UAM) in the biology department. My teaching duties include evaluating students in general biology lab and anatomy and physiology I and II labs. I also have taught anatomy and physiology lecture in some summers. For the labs I order supplies and equipment and keep an inventory of the supplies and equipment. I am also student advisor for about half of our students in allied health areas.
- 2012-Present      Instructor for Medical Terminology in the Biology Department.
- 2004-2006        Instructor of Anatomy & Physiology Lecture for UAM in summer sessions and as overload instructor at the McGehee and Crossett campuses.
- 1984-1997        Laboratory Instructor for the University of Arkansas at Pine Bluff (UAPB) in the biology department. My duties included preparing lab instructor schedules for each semester, teaching students in upper level labs and freshmen labs, coordinating the general biology labs, lab set ups, ordering supplies and equipment, and keeping a lab inventory. I taught labs in physical science, chemistry, botany, histology, principles of biology and zoology. However, my primary duties were in human anatomy and physiology, comparative anatomy and biological science.
- Summer 1996     Instructor(adjunct) of human anatomy and physiology for Southeast Arkansas Technical College, Pine Bluff, Arkansas. I taught both lecture and lab for each of the two summer sessions.
- Science teacher for the Upward Bound Program on the UAPB campus. The six week program offers academic enrichment courses to

economically challenged 9th, 10th, and 11th graders in the region. Course work included earth science, genetics, archeology and physics.

- Summer  
1993 & 1994      Teacher in biology for PREP, and enrichment program for tenth graders to help prepare them for their high school courses. PREP was offered on the UAPB campus.
- 1982-1984      Office manager/secretary for Peter Vandy, CPA, Inc. My duties included the operation of a word processor, research of the micro-computer market, clerical work and receiving clients.
- 1974-1975      Teacher for Warren Junior High School, Warren, Arkansas. I taught eighth grade general science.
- 1968-1972      Student laboratory assistant part time at the UAM in Monticello, Arkansas. I assisted in zoology, organic chemistry, and general chemistry labs.

### **Education**

- 2003-2005      Special student at UAM. I have completed nine hours of Spanish  
GPA 4:00/4:00
- 1992-1995      **Masters Degree** in Secondary Science Education from the UAPB  
Graduate School of Education. GPA 4:00/4:00
- 1985-1986      Special student at UAPB. I took courses required to renew my certification  
to teach biology and to add general science certification. GPA 4:00/4:00
- 1973-1974      Teacher education program at the UAM. I took courses for teacher  
certification in biology. GPA 4:00/4:00
- 1968-1972      **Honor graduate with BS in biology** from UAM. GPA 3:34/4:00
- 1965-1968      Honor graduate of Monticello High School, Monticello, Arkansas.

### **Activities**

Active member of the PAWS (Pets Are Worth Saving)

Active in the Feed the Kids program in Monticello

Volunteers in Public Schools (VIPS) in Pine Bluff, Arkansas

Biology Curriculum Committee at UAPB from 1993-1997

Biology NCATE accreditation committee at UAPB

Attended several computer workshops at UAPB funded through a Minority Institutions Science Improvement Program (MISIP Grant) between 1985 and 1987.

**University of Arkansas at Monticello  
FACULTY VITA FORM**

<b>Name</b>	Last	First	Middle	Highest Degree
	Fawley	Karen	Phillips	Ph.D.
<b>Academic Unit/Field</b>	Mathematics & Natural Science/Biology Professor			
<b>Academic Rank</b>	Associate Professor			

<b>Education</b> (begin with most recent education and include <u>all</u> professional education leading to a degree <u>or</u> professional credential)				
Institution	Location	Degree	Year	Field of study
North Dakota State Univ.	Fargo, ND	Ph.D.	1998	Botany
Old Dominion Univ.	Norfolk, VA	M.S.	1992	Biology
University of Texas	Austin, TX	B.A.	1991	Biology

**Educational Certifications and Year Received:**

<b>Teaching Experience:</b> Teaching and research positions, including dates	
University of Arkansas at Monticello	Associate Professor of Biology 2011-present
University of Arkansas at Monticello	Assistant Professor of Biology 2006-2011
North Dakota State University	Research Assistant Professor 2003-2006
North Dakota State University	Post-Doctoral Associate, Dept. of Biol. Sci. 2000-2003
North Dakota State University	Post-Doctoral Associate, Dept. of Botany 1998-2000
North Dakota State University	Graduate R.A./Graduate T.A., Dept. of Botany 1993-1997
Old Dominion University	Laboratory Manager, Marine Phytoplankton Lab 1992-1993
Old Dominion University	Graduate R.A., Dept. Biological Sciences 1991-1993

**Professional Experience:** Positions (part-time, full-time, temporary and permanent) which

relate to your preparations for your current position)

University of Arkansas at Monticello	Associate Professor of Biology	2011-present
University of Arkansas at Monticello	Assistant Professor of Biology	2006-2011
North Dakota State University	Research Assistant Professor	2003-2006
North Dakota State University	Post-Doctoral Associate, Dept. of Biol. Sci.	2000-2003
North Dakota State University	Post-Doctoral Associate, Dept. of Botany	1998-2000
North Dakota State University	Graduate R.A./Graduate T.A., Dept. of Botany	1993-1997
Old Dominion University	Laboratory Manager, Marine Phytoplankton Lab	1992-1993
Old Dominion University	Graduate R.A., Dept. Biological Sciences,	1991-1993

**Courses Taught (at least for the two previous years):**

Principles of Biology I; Principles of Biology I Lab; General Botany; General Botany Lab; Regional Flora; Aquatic Biology; Special Topics in Biology: Evolutionary History of the Seed; Biology Seminar; Senior Research.

**Publications and Presentations/Scholarly Activities:**

**Publications**

Fawley, M.W., Jameson, I. and K. P. Fawley. 2015. The phylogeny of the genus *Nannochloropsis* (Monodopsidaeaceae, Eustigmatophyceae), with descriptions of *N. australis*, *sp. nov.* and *Microchloropsis*, *gen. nov.* Submitted to *Phycologia* and under review.

Fawley, K.P., Eliáš, M. and Fawley, M.W. The diversity and phylogeny of the commercially important algal class Eustigmatophyceae, including the new clade *Goniochloridales*. *Journal of Applied Phycology*, 26: 1773-1782.

Fawley, M.W., Fawley, K.P. and E. Hegewald. 2013. *Desmodesmus baconii* (Chlorophyta) a new species with double rows of arcuate spines. *Phycologia* 52:565-572.

Fawley, K.P., Witsell, C.T., Fawley, M.W., Breedlove, J.S., Brockman, R.J., Humphrey, A.C., Lawson, J.M., McCallie, K.N., Prescott, D.A., Rushing, J.T. and Whitaker, J.M. 2012. Analyses of the taxonomic status of the Arkansas endemic toothwort, *Cardamine angustata* var. *ouachitana* (Brassicaceae). *Journal of the Arkansas Academy of Science* Volume 66:50-54.

Fawley, M.W., Fawley, K.P. and Hegewald, E. 2011. Taxonomy of *Desmodesmus serratus* (Chlorophyceae, Chlorophyta) and related taxa based upon morphological and DNA sequence data. *Phycologia* 50: 23-56.

Prior, S.E., Fawley, M.W. and Fawley, K.P. 2009. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids. *Journal of the Arkansas Academy of Science* 63:139-144.

Johnson, J.L., Fawley, M.W. and Fawley, K.P. 2007. The diversity of *Scenedesmus* and *Desmodesmus* (Chlorophyceae) in Itasca State Park, Minnesota, USA. *Phycologia* 46:214-229.

Fawley, K.P. and Fawley, M.W. 2007. Observations on the diversity and ecology of freshwater *Nannochloropsis* (Eustigmatophyceae), with descriptions of new taxa. *Protist* 158:325-336.

Fawley, M.W., Dean, M.L., Dimmer, S.K., & Fawley, K.P. 2006. Evaluating the morphospecies concept in the Selenastraceae (Chlorophyceae, Chlorophyta). *J. Phycol.* 42: 142-154.

Fawley, M.W., Fawley, K.P. and Owen, H.A. 2005. Diversity and ecology of picoeukaryotic algae from Lake Itasca, Minnesota, USA, including *Meyerella planktonica*, gen. et. sp. nov. (Trebouxiophyceae, Chlorophyta). *Phycologia* 44: 35-48.

Henley, W.J., Hironaka, J.L., Buchheim, M.A., Buchheim, J.A., Fawley, M.W. and Fawley, K.P. 2004. Phylogenetic analysis of the *Nannochloris/Nannochlorum* clade and description of *Picochlorum oklahomensis* gen. et. sp. nov. (Trebouxiophyceae). *Phycologia* 43: 641-52.

Fawley, M.W., Fawley, K.P. and Buchheim, M.A. 2004. Molecular diversity among communities of freshwater microchlorophytes. *Microbial Ecology* 48: 489-99.

Fawley, M.W. and Fawley, K.P. 2004. A simple and rapid technique for the isolation of DNA from microalgae. *J. Phycol.* 40:223-25.

Phillips, K.A. and Fawley, M.W. 2002. Winter phytoplankton blooms under ice associated with elevated oxygen levels. *J. Phycol.* 38:1068-73.

Phillips, K.A. and Fawley, M.W. 2002. Winter phytoplankton community structure in three shallow temperate lakes during ice cover. *Hydrobiologia* 470:97-113

Phillips, K.A. and Fawley, M.W. 2000. Diversity of coccoid algae in shallow lakes during winter. *Phycologia* 39:498-506.

Phillips, K.A. 2000. Assessment of potential metrics for index of wetland biological integrity (IWBI) for phytoplankton. Report submitted to the North Dakota Health Department, pp. 15.

Phillips, K.A., Jaskowiak, M. A. and Fawley, M.W. 2000. Analysis of the algal communities of the Sheyenne River, North Dakota, potentially affected by the Devils Lake emergency outlet. Report submitted to the U.S. Army Corps of Engineers, pp. 28.

Davis, L.N., Phillips, K.A. and Marshall, H.G. 1997. Seasonal abundance of autotrophic picoplankton in the Pagan River, a Nutrient Enriched Subestuary of the James River, Virginia. *Virginia Journal of Science* 48: 211-218.

### **Grants and contracts:**

Fawley, K.P. Botanical Database. \$4,000. Arkansas Natural Heritage Commission, 2015.

Fawley, M.W., Fawley, K.P. and Bramlett, M. Alterations and Renovations to improve Biomedical Research Facilities at the University of Arkansas at Monticello. \$190,000.

Arkansas INBRE project renewal, funded by the National Institutes of Health, 2015-2017.

Fawley, M.W. and Fawley, K.P. Isolation of algal strains for lipid production. \$1,100. Arkansas Space Grant Consortium, 2015.

Fawley, K.P. Study of the taxonomic status of *Erythronium albidum* and *Erythronium mesochoreum* (Liliaceae) in Arkansas. \$1,500. UAM Faculty Research Grant, 2014-2015.

UAM Faculty Research Grant- Study of the taxonomic status of *Cardamine angustata* var. *ouachitana*, \$1500, 2012.

Fawley, K.P. (PI) and Fawley, M.W. (Co-PI) Diversity and Classification of the poorly known Algal Class Eustigmatophyceae. \$152,273. National Science Foundation, Systematic Biology Program, 2012-2016. (extension awarded 2015)

UAM Faculty Research Grant- Study of the taxonomic status of *Cardamine angustata* var. *ouachitana*, \$1500, 2011.

Arkansas Space Grant Consortium - Algae that can be an important food source for extended space missions, \$4100, 2010-2011, Undergraduate-Nathan Probst.

UAM Faculty Research Grant- Phylogeny and taxonomy of the algal class, Eustigmatophyceae, \$1500, 2010

Arkansas Space Grant Consortium - Algae that can be an important food source for extended space missions, \$5320, 2009-2010, Undergraduate-Nathan Probst.

UAM Faculty Research Grant-Taxonomy and diversity of the algal class, Eustigmatophyceae, \$1600, 10/2008, extended to 2009.

Arkansas Space Grant Consortium - Algae that can be an important food source for extended space missions, \$6,359, 2008-2009, Undergraduate-Sara Prior.

UAM Faculty Research Grant-Taxonomy of the freshwater alga, *Nannochloropsis*, \$2100, 2007

UAM Faculty Research Grant, Collaborative research on the taxonomy of the green algae *Desmodesmus* and *Scenedesmus*, \$2231, 2006

Nutrient Criteria Pilot Project for the Sheyenne River, ND. EPA/ND Department of Health. \$65,000, 2002.

Nutrient Criteria Pilot Project for the Sheyenne River, ND. EPA/ND Department of Health. \$62,391, 2001.

Collaborative research: species discovery and population dynamics of coccoid algae in Itasca State Park, Minnesota. NSF Microbial Observatories. \$400,000, (Co-PI) 2000-2007.

Instrumentation for plant cell and molecular biology. NSF-MUI. \$122,276,(Co-PI) 2000-2002.

Wetland Water Quality Standards Development in North Dakota. EPA/ND Dept. of Health, \$8,886, 1999.

Phytoplankton analysis for surface water quality monitoring of North Dakota Lakes. ND Dept. of Health, \$13,092, 1998-2000.

Survey of algal communities potentially affected by the proposed Devils Lake Emergency Outlet. US Army Corps of Engineers. \$60,000, 1997-1999.

Survey of phytoplankton communities involved in oxygen supersaturation under the ice in shallow North Dakota lakes. USGS Water Resources Research Grant Program. \$12,489, 1994-1995.

## **Presentations (UAM)**

### **6th European Phycological Congress. London, 08/2015**

Amaral, R.F.<sup>1\*</sup>, Fawley, K.P.<sup>2</sup>, Němcová, Y.<sup>3</sup>, Ševčíková, T.<sup>4</sup>, Lukešová, A.<sup>5</sup>, Santos, Lília M.A<sup>1</sup>, Fawley, M.W.<sup>2</sup>, and Eliáš, M<sup>4</sup>. (2015). *Diversity and revised taxonomy of the Pseudellipsoidion*



group – a recently recognized major clade of eustigmatophyte algae. University of Coimbra, Coimbra, Portugal<sup>1</sup>, University of Arkansas at Monticello<sup>2</sup>, Charles University, Prague, Czech Republic<sup>3</sup>, University of Ostrava, Czech Republic<sup>4</sup> and Institute of Soil Biology, Academy of Sciences of the Czech Republic, České Budějovice, Czech Republic<sup>5</sup>.

#### **50<sup>th</sup> Meeting of the Phycological Society of America, Philadelphia, PA, 08/2015**

Fawley, M.\*, Jameson, I. and Fawley, K. (2015). *Phylogeny of Nannochloropsis (Eustigmatophyceae) including strains from the Australian National Algae Culture Collection*. University of Arkansas at Monticello<sup>1</sup> and Australian National Algae Culture Collection, CSIRO National Research Collections Australia, Hobart, Tasmania, Australia<sup>2</sup>. \*oral presentation

#### **Arkansas Native Plant Society Spring Meeting, UAM, Monticello, AR, 04/2015**

Fawley, K.P. and Fawley, M.W. The UAM Herbarium: Past, Present and Future.

#### **Arkansas Academy of Science, , Henderson State University, Arkadelphia, AR, 04/ 2015**

Bernal, R.\*, Davidson, F.\*, Fawley K. and Fawley M. Evaluation of the plastid gene *ccsA* for use in delimiting species of the alga, *Nannochloropsis* (Eustigmatophyceae). \*student poster presentation

Austin, J., Cordona-Otero, A., Taylor M., Fawley, K. and Fawley M. Diversity of freshwater *Nannochloropsis* (Eustigmatophyceae) evaluated by sequence analysis of the plastid gene *ccs1*. \*student poster presentation

Peterson, N., Rivera, F., Vincent S., Hill M., Fawley, K. and Fawley, M. A comparison of the communities of the alga, *Nannochloropsis* (Eustigmatophyceae), in different lakes in North Dakota and Minnesota. \*student poster presentation

Fawley, M. and Fawley, K. Characterization of algal strains from the Eustigmatophyceae isolated from Arkansas. (poster)

#### **UAM Research and Scholarship Forum, 04/ 2015**

Bernal, R., Davidson, F., Fawley K. and Fawley M. Evaluation of the plastid gene *ccsA* for use in delimiting species of the alga, *Nannochloropsis* (Eustigmatophyceae). \*student poster presentation

Austin, J., Cordona-Otero, A., Taylor M., Fawley, K. and Fawley M. Diversity of freshwater *Nannochloropsis* (Eustigmatophyceae) evaluated by sequence analysis of the plastid gene *ccs1*. \*student poster presentation

Peterson, N., Rivera, F., Vincent S., Hill M., Fawley, K. and Fawley, M. A comparison of the communities of the alga, *Nannochloropsis* (Eustigmatophyceae), in different lakes in North Dakota and Minnesota. \*student poster presentation

#### **Invited Presentations-Czech Republic, 04/2014**

Fawley, M.W. and Fawley, K.P. Species Concepts and Definitions for Eukaryotic Microorganisms. University of Ostrava, Czech Republic.

Fawley, K.P. and Fawley, M.W. The Itasca Microbial Observatory: Diversity and Ecology of Coccoid Algae, Charles University, Prague, Czech Republic.

**Arkansas Academy of Sciences Annual Meeting, Magnolia, AR, 04/2014.**

Fawley, K.P.<sup>1</sup>, Witsell, C.T.<sup>2</sup>, and Fawley M.W.<sup>1</sup> The Status of *Cardamine dissecta* (Brassicaceae) in Arkansas. University of Arkansas at Monticello<sup>1</sup> ; Arkansas Natural Heritage Commission<sup>2</sup>;

**Student Research and Scholarship Forum, UAM, Monticello, AR, 11/2013.**

Collins, M.\* , Jones, N.\* , Lindsey, M.\* , Mendosa, A.\* , Roberts, C.\* , Garmon, J.\* , Fawley, K. and Fawley M.. Evaluation of DNA Sequences from the Nuclear Large Subunit Ribosomal RNA gene for Use in Delimiting Species of the Alga, *Nannochloropsis* (Eustigmatophyceae).

\*student poster presentation

**Student Research and Scholarship Forum, UAM, Monticello, AR (poster), UAM School of Education STEM Open House, 09/2013.**

Collins, M.\* , Jones, N.\* , Lindsey, M.\* , Mendosa, A.\* , Roberts, C.\* , Garmon, J.\* , Fawley, K. and Fawley M.. Evaluation of DNA Sequences from the Nuclear Large Subunit Ribosomal RNA gene for Use in Delimiting Species of the Alga, *Nannochloropsis* (Eustigmatophyceae).

\*student poster presentation

**ARK-LSAMP Spring Conference, Little Rock, AR, 04/2013**

Newhouse, K.V.\* , Fawley, K. P., Fawley, M.W. and Prescott D.A. Digitization of the UAM Herbarium: Bringing Analog Data into the Digital Age. \*student poster presentation

Collins, M.\* , Jones, N.\* , Lindsey, M.\* , Mendosa, A.\* , Roberts, C.\* , Garmon, J.\* , Fawley, K. and Fawley M.. Evaluation of DNA Sequences from the Nuclear Large Subunit Ribosomal RNA gene for Use in Delimiting Species of the Alga, *Nannochloropsis* (Eustigmatophyceae).

\*student poster presentation

**Invited Skype lecture, 04/2013**

Fawley, K.P. Managing and Curating Algal Culture Collections. Skype lecture to Dr. Travis Marsico's Curations and Collections Class, Arkansas State University.

**Arizona 11<sup>th</sup> Annual Student Research Conference, Tempe, Arizona, 03/2013.**

Reyes, R.M.<sup>1</sup>, Fawley, K. P.<sup>1</sup>, Witsell, C.T.<sup>2</sup> and Fawley M.W.<sup>1</sup>, Evidence of Hybridization Between Two Taxa of the Genus *Cardamine* (Brassicaceae) in Arkansas. University of Arkansas at Monticello<sup>1</sup> ; Arkansas Natural Heritage Commission<sup>2</sup>; \*student poster presentation.

**Invited presentation, University of Tulsa, 02/2013**

Fawley, K.P.\* and Fawley, M.W. Species Concepts and Definitions for Eukaryotic Microorganisms. Department of Biological Sciences, University of Tulsa.

**ARK-LSAMP Spring Conference, Little Rock, AR, 04/2012**

Brown, D.\*, Crift, R.\*, Newhouse, K.\*, Ohannes, M.\*, Fawley, K., and Fawley, M. Evaluation of the DNA Sequences from the Nuclear Ribosomal Internal Transcribed Spacer Region for Use in Delimiting Species of the alga, *Nannochloropsis* (Eustigmatophyceae). \*student poster presentation

Garcia, E.\*, White, D.\*, Fawley, K. and Fawley, M. 2012. The Use of Plastid Barcoding DNA Sequences to Characterize the Sedge Species, *Carex nigromarginata* and *Carex floridana*. \*student poster presentation

**Arkansas Academy of Sciences Annual Meeting, Magnolia, AR, 04/2012.**

Fawley, K.P.<sup>1\*</sup>, Witsell, C.T.<sup>2</sup>, Fawley, M.W.<sup>1</sup>, Breedlove, J.S.<sup>1</sup>, Brockman, R.J.<sup>1</sup>, Humphrey, A.C.<sup>1</sup>, Lawson, J.M.<sup>1</sup>, McCallie, K.N.<sup>1</sup>, Prescott, D.A.<sup>1</sup>, Rushing, J.T.<sup>1</sup> and Whitaker, J.M.<sup>1</sup> Analyses of the taxonomic status of the Arkansas endemic toothwort, *Cardamine angustata* var. *ouachitana* (Brassicaceae). University of Arkansas at Monticello<sup>1</sup>; Arkansas Natural Heritage Commission<sup>2</sup>; \*Oral presentation

**Invited presentation, Department of Biology, University of Arkansas at Little Rock, 02/2012.**

Fawley, M.W.\* and Fawley, K.P. Species Concepts and Definitions for Eukaryotic Microorganisms. \*oral presentation

**Posters at the Capitol, Little Rock, AR, 02/2012.**

Fawley, K.P.<sup>1</sup>, Witsell, C.T.<sup>2</sup>, Fawley, M.W.<sup>1</sup>, Breedlove, J.S.<sup>1</sup>, Brockman, R.J.<sup>1</sup>, Humphrey, A.C.<sup>1</sup>, Lawson, J.M.<sup>1</sup>, McCallie, K.N.<sup>1</sup>, Prescott, D.A.<sup>1\*</sup>, Rushing, J.T.<sup>1</sup> and Whitaker, J.M.<sup>1</sup> *Cardamine ouachitana*, a new Arkansas Endemic Plant Revealed by DNA Sequence Analysis. University of Arkansas at Monticello<sup>1</sup>; Arkansas Natural Heritage Commission<sup>2</sup>; \*student poster presentation

Probst, N.<sup>1\*</sup>, Fawley, K.P.<sup>1</sup>, Fawley, M.W.<sup>1</sup>, Eliáš, M.<sup>2</sup> and Nemjová, K.<sup>2</sup> DNA Sequence Analysis in the Algal Class Eustigmatophyceae, a Potential Source of Essential Fatty Acids. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>2</sup> and Charles University, Prague, Czech Republic<sup>2</sup>. \*student poster presentation

**Arkansas INBRE Research Conference, Fayetteville, AR, 10/2011.**

Probst, Nathan<sup>1\*</sup>, Fawley, Karen P.<sup>1</sup>, Fawley, Marvin. W.<sup>1</sup>, Eliáš, Marek<sup>2</sup>, and Nemjová, Katerína<sup>2</sup>. Phylogenetic analysis of newly discovered members of the algal class Eustigmatophyceae. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>2</sup> and Charles University, Prague, Czech Republic<sup>2</sup>. Student poster

presentation

**Phycological Society of America Annual Meeting, Seattle, WA, 07/2011.**

Fawley, K.P.<sup>1\*</sup>, Fawley, M.W.<sup>1</sup>, Eliáš, M.<sup>2</sup>, Nemjová, K.<sup>2</sup> and Probst, N.<sup>1</sup> Phylogeny of the Eustigmatophyceae. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>1</sup> and Charles University, Prague, Czech Republic<sup>2</sup>. \*oral presentation

**Arkansas Native Plant Society Spring Meeting, Bentonville, AR, 05/2011**

Fawley, M.W. and Fawley, K.P. Presentation to the Arkansas Native Plant Society on the new Botanical Research and Herbarium Building and information on a new Arkansas endemic species.

**ARK-LSAMP Spring Conference, Little Rock, AR, 04/2011**

Criner, K.\*, De La Cruz, A.\*, Jacobs, L.\*, Jimenez, E.\*, White, D.\*, Fawley, K.P. and Fawley, M.W. Further studies of heterogeneity in the nuclear ribosomal internal transcribed spacer region of the sedges, *Carex nigromarginata* and *Carex floridana*. \*student poster presentation

Garcia, E.\*, Fawley, K.P. and Fawley, M.W. Heterogeneity of the Ribosomal External Transcribed Spacer Region in some *Carex* species. \*student poster presentation

**ASGC /NASA EPSCoR Annual Meeting ASGC, Morrilton, AR, 04/2011**

Probst, N.\*, Fawley, M.W. and Fawley, K.P. Diversity of Freshwater Eustigmatophyceae. \*Student poster presentation

**Arkansas Academy of Sciences Annual Meeting, Monticello, AR, 04/2011.**

Fawley, M.W.\* and Fawley, K.P. Ribosomal RNA Spacer Sequences as a Tool to Identify *Carex* Species (Sedges)  
\*oral presentation

Fawley, K.P.<sup>1\*</sup>, Fawley, M.W.<sup>1</sup>, Eliáš, M.<sup>2</sup>, Nemjová, K.<sup>2</sup> and Probst, N.<sup>1</sup> Phylogeny of Freshwater Eustigmatophyceae. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>1</sup> and Charles University, Prague, Czech Republic<sup>2</sup>. \*student poster presentation

Probst, N., Fawley, M.W. and Fawley, K.P\*. Diversity of Freshwater Eustigmatophyceae. \*oral presentation

**Invited presentation to the School of Forest Resources, University of Arkansas at Monticello, 02/2011**

Fawley, K.P.<sup>1\*</sup>, Fawley, M.W.<sup>1</sup>, Eliáš, M.<sup>2</sup>, Nemjová, K.<sup>2</sup> and Probst, N.<sup>1</sup> Phylogeny of the Eustigmatophyceae. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>1</sup> and Charles

University, Prague, Czech Republic<sup>2</sup>. oral presentation

**Phycological Society of America, Michigan State University, E. Lansing, MI, 07/2010**

Fawley, K.P.<sup>1\*</sup>, Fawley M. W.<sup>1</sup>, Eliáš, M.<sup>2</sup>, Nemjová, K.<sup>2</sup> and Probst N.<sup>1</sup> Phylogeny of Freshwater Eustigmatophyceae School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>1</sup> and Charles University, Prague, Czech Republic<sup>2</sup>.  
\*poster presentation

Fawley, M.W.<sup>1\*</sup>, Fawley, K. P.<sup>1</sup> and Hegewald, E.<sup>2</sup> Species characterization in *Desmodesmus* (Chlorophyceae) using nuclear ITS and plastid rbcL sequence data combined with morphological analyses. School of Mathematical and Natural Sciences, University of Arkansas at Monticello<sup>1</sup> and Institute of Chemistry and Dynamics of the Geosphere III, Research Center Jülich, Germany<sup>2</sup>. \*oral presentation

**Meeting of the International Society for Evolutionary Protistology, Kanazawa City, Japan, 07/2010.**

Eliáš, M.<sup>1</sup>, Fawley, K.P.<sup>2</sup>, Nemjová, K.<sup>1</sup>, Fawley, M.W.<sup>2</sup>, Němcová, Y.<sup>1</sup>, Probst, N.<sup>2</sup>, Fišerová, M.<sup>1</sup>, & Bailey, J.C.<sup>3</sup> Probing into the Phylogenetic Diversity of the Neglected Algal Class Eustigmatophyceae (Ochrophyta, Stramenopiles), , Charles University, Prague, Czech Republic<sup>1</sup>, School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR<sup>2</sup> and University of North Carolina at Wilmington<sup>3</sup>. Poster presentation by our colleagues at Charles University. I did not attend the meeting.

**ARK-LSAMP Spring Conference, Philander Smith College, Little Rock, AR, 04/2010**

Bridges, A.\* , Bush, E., Garcia, E.\* , Fawley K. and Fawley M. Evidence for heterogeneity in the nuclear ribosomal internal transcribed spacer region of some *Carex* species (sedges). School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR.  
\*student poster presentation

**ASGC /NASA EPSCoR Annual Meeting ASGC, Morrilton, AR, 04/2010**

Probst, N.\* , Fawley, M and Fawley K. Diversity of Freshwater Eustigmatophyceae. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR.  
\*student poster presentation

**ARK-LSAMP Spring Conference, Little Rock, AR, 04/2009**

Garcia, J., Fawley, K. P. and Fawley M.W. Evidence for a new hybrid species of *Carex* (Cyperaceae), School of Mathematical and Natural Sciences University of Arkansas at Monticello, Monticello, AR. \*student poster presentation

Grant, J.\* , Fawley K.P. and Fawley M.W. Utility of the nuclear ribosomal external transcribed space region for the identification of *Carex* species (Cyperaceae), School of Mathematical and

Natural Sciences University of Arkansas at Monticello, Monticello, AR. \*student poster presentation

**ASGC /NASA EPSCoR Annual Meeting, Morrilton, AR, 04/2009**

Prior, S.\* , Fawley, M. and Fawley K. P. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids, School of Mathematical and Natural Sciences University of Arkansas at Monticello, Monticello, AR. \*student oral presentation

**Arkansas Academy of Sciences Annual Meeting, Clarksville, AR, 04/2009**

Prior, S.\* , Fawley, M. and Fawley K. P. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids, School of Mathematical and Natural Sciences University of Arkansas at Monticello, Monticello, AR. \*student oral presentation

**INBRE Meeting, Fayetteville, AR, 11/2008**

Prior, S.\* , Fawley, M. and Fawley K. P. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids, School of Mathematical and Natural Sciences University of Arkansas at Monticello, Monticello, AR. \*student oral presentation

**INBRE Meeting, Fayetteville, AR, 11/2007**

Henley, M.L.\* , Fawley K.P. and Fawley M.W. Identification of *Carex* (sedges) species using ribosomal ITS DNA sequence data. School of Mathematical and Natural Sciences University of Arkansas at Monticello, Monticello, AR. \*student poster presentation

**Arkansas Academy of Sciences, Arkansas Tech University, Russellville, AR, 04/2007**

Fawley, K.P.<sup>1\*</sup>, Fawley, M.W.<sup>1</sup>, Bacon, E.J.<sup>1</sup> and Eberhard Hegewald<sup>2</sup>. Preliminary survey of the *Desmodesmus* (Chlorophyta) of Lake Chicot, including one possible new species. School of Mathematical and Natural Sciences, University of Arkansas at Monticello and Institute of Chemistry and Dynamics of the Geosphere III, Research Center Jülich, Germany. \*oral presentation

**Professional Service** (college, other professional service including collaborative efforts with departments, programs, faculty, and public schools):

**Committees:**

- HLC4 Committee, 2013
- Search Committee for the Vice Chancellor for Advancement, 2013
- Program Review Committee, 2007-present, (chair 2009-2014)
- Search Committee for Dean of Mathematical and Natural Sciences, 2007
- Bachelor of Liberal Arts Committee, 2007-2008
- Biology Search Committee, 2007-2008

**UAM Organizations:**

- Faculty mentor for ARK-LSAMP students (The ARK-LSAMP program is now the Research Program for Minority Students (UAM-RPMS))
- UAM Biology Club, Saline River Stream Team
- Faculty sponsor for Lady Knights

**To the public:**

- Monticello Middle School Algae Project
- Identification of plant specimens for Agricultural Extension agents and the general public through e-mails, digital photos and mailed specimens.
- UAM-ERZ Summer Science Camp
- UAM Heritage Garden

**To the profession:**

- Native Plant Society Board Member (Secretary), 2011-present
- Arkansas Vascular Flora Committee, 2006-present
- Review journal articles for *Journal of the Arkansas Academy of Science*, *Phycologia*, *Journal of Phycology*, *Applied Botany* and the *Journal of Applied Phycology*.
- Review NSF proposals for the Biological Collections program
- Phycological Society of America (PSA) Education Committee, 2006-2007

**Honors, Prizes, and Awards and Professional Associations:**

- Finalist for the Hornaday Outstanding Faculty Award, 2013
- Nominated for Teacher of the Year, Alpha Chi, 2013
- Rookie of the Year finalist, Alpha Chi, 2009
- North Dakota Water Resources Research Institute Graduate Student Summer Fellowship, 1996;  
1997
- Phi Kappa Phi induction, 1996
- Sigma Xi induction, 1996
- Adrian Fox Scholarship, 1995
- Oliver Lavoy Scholarship, 1994
- Arkansas Academy of Science
- Arkansas Native Plant Society

- Phycological Society of America
- Botanical Society of America
- SouthEast Regional Network of Expertise and Collections (SERNEC)



## CURRICULUM VITAE

Marvin W. Fawley, Ph.D.

Assistant Dean for Science and Research  
Director, UAM Research Program for Minority Students  
School of Mathematical and Natural Sciences  
University of Arkansas at Monticello  
Monticello, Arkansas 71656  
fawleym@uamont.edu; 870-460-1165

### *Education:*

Wilmington College, Wilmington, Ohio  
Cornell University, B.S. Botany, 1977  
San Francisco State University, M.A. Marine Biology, 1981 (H. Yananaka, research advisor)  
Miami University, Ph.D. Botany, 1985 (K.R. Mattox and K.D. Stewart, research advisors)

### *Honors and Awards:*

Miami University Research Fellowship, 1982-1984  
Miami University Dissertation Fellowship, 1984-1985  
Phi Sigma Award for Doctoral Study, Miami University, 1986  
North Dakota State University Mortar Board "Preferred Professor", 1990  
Provasoli Award from the Phycological Society of America for authoring the outstanding paper in the *Journal of Phycology* for 2010.

### *Professional Experience:*

Research Assistant, Biology Department, San Francisco State University, 1980  
Instructor in Biology, San Francisco State University, 1980-1981  
Research Assistant, Carnegie Institution of Washington, Department of Plant Biology, Stanford, California, 1981-1982, summer 1983  
Visiting Assistant Professor of Botany, Miami University, 1986  
Assistant Professor of Botany/Biology, North Dakota State University, 1986-1992  
Associate Professor of Botany/Biology, North Dakota State University, 1992-1999  
Professor of Biological Sciences, North Dakota State University, 1999-2006  
Assistant Dean for Science and Research, University of Arkansas Monticello, 2007-Present  
Campus Coordinator, Arkansas Louis Stokes Alliance for Minority Participation, 2008-2013.  
Director, Research Program for Minority Students, University of Arkansas at Monticello, 2013-Present.

### *Research Interests:*

Evolution, diversity, and systematics of plants and algae.  
Application of molecular techniques to ecological studies and identification of algae.  
Phylogeny of the green algae.  
Phylogeny of the Eustigmatophyceae.  
Diversity of freshwater coccoid algae.  
Assessment of possible new taxa of vascular plants in Arkansas.

### *Courses Taught:*

Introductory Botany	Evolution
Phycology	Evolution: Scientific and Cultural Perspectives
Cell Biology	Molecular Evolution and Phylogenetics
General Biology, Cellular	Genetics
Biology Seminar	Research Experience for RPMS Students

### *Active Grants:*

- Partnership for Biomedical Research in Arkansas (Facilities Alterations and Renovations Section). \$190,000. 2015-2020. National Institutes of Health, INBRE Program. UAM CoPI; Lawrence Cornett, UAMS, PI. (CoPIs Karen Fawley and Morris Bramlett).
- Equipment to enhance biomedical research and education at UAM. \$50,000. 2015-2016 Arkansas INBRE.
- Diversity and Classification of the poorly known Algal Class Eustigmatophyceae, \$152,273. 2012-2016. National Science Foundation. (CoPI; Karen Fawley, PI)
- Arkansas Alliance for Minority Participation. \$3,471,665. 2013-2018. National Science Foundation. (CoPI; Mary Benjamin, UAPB, PI) (Note: UAM does not receive direct support from this grant)

### *Additional Grants and Contracts:*

- Isolation of algal strains for lipid production, \$1150. Arkansas Space Grant Consortium. 2014-2015. (PI; Karen Fawley, CoPI)
- UAM-ASSET Initiative Summer Research Experience and Internship Program. \$6,400. 2014. Arkansas Science and Technology Authority.
- Arkansas Science and Technology Authority ASSET II Summer STEM Internships. \$20,300. 2013-2014. Arkansas Science and Technology Authority
- Research Microscope System for UAM Biomedical Research and Education. \$25,000. 2013. Arkansas INBRE.
- Algae that can be an important food source for extended space missions. \$4,100. 2010-2011. Arkansas Space Grant Consortium. (with Karen Fawley)
- Arkansas Alliance for Minority Participation (ARK-LSAMP) in STEM Careers – New Alliance, \$304,023. 2008-2013 National Science Foundation. (CoPI; Morris Bramlett, PI)
- Equipment to enhance Cell and Molecular Biology Research. \$25,000. 2012. Arkansas INBRE.
- Algae that can be an important food source for extended space missions. \$6,359. 2009-2010. Arkansas Space Grant Consortium. (with Karen Fawley)
- Equipment for Cell and Molecular Biology. \$18,900. 2008. Arkansas INBRE.
- Collaborative Research: A multi-gene approach to chlorophytan phylogeny and diversity. \$107,575. 2002-2006. National Science Foundation, Systematic Biology.
- Collaborative research: species discovery and population dynamics of coccoid algae in Itasca State Park, Minnesota (with Karen Fawley). \$436,500. 2000-2007. National Science Foundation, Microbial Observatories Program.
- Nutrient criteria pilot project for the Sheyenne River. (with Karen Fawley (PI), Megan Jaskowiak) \$65,000. 2002-2003. US EPA - North Dakota Department of Health.
- Genetic Diversity of *Aphanomyces cochliodites*. \$25,000. 2000-2003. USDA.
- Instrumentation for Plant Cell and Molecular Biology (with Karen Fawley, Marc Anderson, and Alan White) \$121,276. 2000-2002. NSF, Instrumentation and Instrument Development Program.
- Physical and environmental factors influencing the periphyton communities of the Sheyenne River, North Dakota (with Karen Fawley). \$16,968. 2001-2002. North Dakota Water Resources Research Institute.

Phylogeny of basal green algae: preliminary analysis of RNA polymerase II subunit genes. \$6,000. 2000-2001. ND EPSCoR.

Identification of Great Lakes coccoid algae using molecular tools. \$5,000. 1999-2000. NDSU Research Foundation.

Purchase of a digital camera system. \$2,600. 1998. North Dakota EPSCoR.

Purchase of a transilluminator. \$500. 1998. North Dakota EPSCoR.

Phylogeny and Systematics of Coccoid Prasinophytes. \$110,000. 1997-2000. National Science Foundation, Systematic Biology Program.

Survey of the Algal Communities Potentially Affected by the Proposed Devils Lake Emergency Outlet. 1997-1999. \$60,000. U.S. Army Corps of Engineers.

Supplies for DNA sequencing. \$607. 1997. North Dakota EPSCoR.

Purchase of a "Minibeadbeater". \$685. 1997. North Dakota EPSCoR.

Phylogeny and systematics of coccoid prasinophytes. \$15,000. 1996-1997. North Dakota EPSCoR.

Development of a simple and rapid technique for identification of organisms important to water quality, focusing on the euglenoids of the Red River of the North. 1995-1996. \$17,450. North Dakota Water Resources Research Institute. (with K. Phillips)

Interim support for the development of ribosomal RNA-based techniques for the detection of aquatic microorganisms. 1995. \$3,100. North Dakota State University Grant-in-Aid.

Phylogeny and systematics of coccoid prasinophytes. 1995-1996. \$18,785. ND-EPSCoR.

Survey of the phytoplankton communities involved in oxygen supersaturation under the ice in shallow North Dakota Lakes. 1994-1995. \$12,489. North Dakota Water Resources Research Institute.

The origins and phylogeny of green plants: a research coordination group. 1994-1999. Joint program on Collaborative Research in Plant Biology (NSF, USDA, DOE). (Participant, M. Buchheim, University of Tulsa, PI)

Graduate student support for the development of oligonucleotide probes. 1992-1994. \$17,400. North Dakota ASEND Program.

Development of ribosomal RNA-based oligonucleotide probes for green ultraphytoplankton. 1993-1995. \$161,125. National Science Foundation, Biological Oceanography Program.

Purchase of a Dual Wavelength scanning spectrophotometer. 1990-1992. \$23,857. NSF Biological Instrumentation Program. (S. Meinhardt, PI, five other CoPIs)

Evaluating the validity of pigment fingerprints as taxonomic indicators in coccoid green ultraphytoplankton. 1990-1992. \$99,539. National Science Foundation Biological Oceanography Program.

Summer Undergraduate Research Experience. 1989-1991. \$4,750. NSF EPSCoR Program, North Dakota ASEND.

Undergraduate research in plant molecular biology. 1988. \$32,000. National Science Foundation Research Experiences for Undergraduates Program. (with M. Duysen, R. Sparks, and A. Oleson)

Comparative biochemistry and immunochemistry of the light-harvesting complexes of green algae. 1988-1990. \$60,000. NSF EPSCoR Program, North Dakota ASEND.

Purchase of Centrifuges and Rotors. \$46,000. 1987-1990. NSF Biological Instrumentation Program. (with M. Sheridan, M. Duysen and D. Galitz)

Separation and quantification of pigments from photosynthetic pigment-protein complexes by high-performance liquid chromatography. \$1000. 1987. North Dakota State University Grant-in-Aid Program.

### *Selected Publications:*

Fawley, M.W., Jameson, I. and Fawley, K.P. The phylogeny of the genus *Nannochloropsis* (Monodopsidaeae, Eustigmatophyceae), with descriptions of *N. australis*, sp. nov. and *Microchloropsis*, gen. nov. In revision for *Phycologia*.

Fawley, K.P., Eliáš, M. and Fawley, M.W. 2014. The diversity and phylogeny of the

- commercially important algal class Eustigmatophyceae, including the new clade *Goniochloridales*. *Journal of Applied Phycology* 26:1773-1782.
- Fawley, M.W., Fawley, K.P. and E. Hegewald. 2013. *Desmodesmus baconii* (Chlorophyta) a new species with double rows of arcuate spines. *Phycologia* 52:565-572.
- Fawley, K.P., Witsell, C.T., Fawley, M.W., Breedlove, J.S., Brockman, R.J., Humphrey, A.C., Lawson, J.M., McCallie, K.N., Prescott, D.A., Rushing, J.T. and Whitaker, J.M. 2012. A possible new Arkansas endemic plant revealed by DNA sequence analysis. *Journal of the Arkansas Academy of Science*, 66:50-54.
- Fawley, M. W., Fawley, K. P. and Hegewald, E. 2011. Taxonomy of *Desmodesmus serratus* (Chlorophyceae, Chlorophyta) and related taxa based upon morphological and DNA sequence data. *Phycologia* 50:23-56.
- Zechman, F.W., Verbruggen, H., Leliaert, F., Buchheim, M.A., Fawley, M.W., Ashworth, M. Spalding, H., Pueschel, C.M., Buchheim, J.A., Verghese, B. and Hanisak, M.D. 2010. The deep-water marine palmelloid algae *Palmophyllum* and *Verdigellas* represent an ancient lineage of green plants. *Journal of Phycology* 46:1288-1295.
- Prior, S.E., Fawley, M.W. and Fawley, K.P. 2009. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids. *Journal of the Arkansas Academy of Science* 63:139-144
- Acosta-Leal, R., Fawley, M.W. and Rush, C. M. 2008. Changes in the intraindolate genetic structure of *Beet necrotic yellow vein virus* populations associated with plant resistance breakdown. *Virology* 376:60-68.
- Fawley, K.P. and Fawley, M.W. 2007. Observations on the diversity and ecology of freshwater *Nannochloropsis* (Eustigmatophyceae), with descriptions of new taxa. *Protist* 158:325-336.
- Johnson, J.L., Fawley, M.W. and Fawley, K.P. 2007. The diversity of *Scenedesmus* and *Desmodesmus* (Chlorophyceae) in Itasca State Park, Minnesota, USA. *Phycologia* 46:214-229.
- Kim, E., Wilcox, L.W., Fawley, M.W., and Graham, L.E. 2006. Phylogenetic position of the green flagellate *Mesostigma viride* based on alpha-tubulin and beta-tubulin gene sequences. *International Journal of Plant Science* 167:873-883.
- Fawley, M.W., Dean, M. L., Dimmer, S. K. and Fawley, K.P. 2006. Evaluating the morphospecies concept in the Selenastraceae (Chlorophyceae, Chlorophyta). *Journal of Phycology* 42:142-154.
- Fawley, M.W., Fawley, K.P. and Owen, H.A. 2005. Diversity and ecology of small coccoid green algae from Lake Itasca, Minnesota, USA, including *Meyerella planktonica*, gen. et sp. nov. (Trebouxiophyceae, Chlorophyta). *Phycologia* 44:35-48.
- Fawley, M.W. and Fawley, K.P. 2004. A simple and rapid technique for the isolation of DNA from microalgae. *Journal of Phycology* 40:223-225.
- Fawley, M.W., Fawley, K.P. and Buchheim, M.A. 2004. Molecular diversity among communities of freshwater microchlorophytes. *Microbial Ecology* 48:489-499. (Microbial Observatories Special Edition)
- Henley, W.J., Hironaka, J.L., Buchheim, M.A., Buchheim, J.A., Fawley, M.W. and Fawley, K.P. 2004. Phylogenetic analysis of the *Nannochloris/Nannochlorum* clade and description of *Picochlorum oklahomensis*, gen. et sp. nov. (Trebouxiophyceae). *Phycologia* 43:641-652.
- Phillips, K.A. and Fawley, M.W. 2001. Winter phytoplankton community structure in three shallow temperate lakes during ice cover. *Hydrobiologia* 470:97-113.
- Phillips, K.A. and Fawley, M.W. 2001. Winter phytoplankton blooms under ice associated with elevated oxygen levels. *Journal of Phycology* 38:1068-1073.

- Phillips, K.A. and Fawley, M.W. 2000. Diversity of coccoid algae in shallow lakes during winter. *Phycologia* 39:498-506.
- Fawley, M.W., Yun, Y. and Qin, M. 2000. Phylogenetic analyses of 18S rDNA sequences reveal a new coccoid lineage of the Prasinophyceae (Chlorophyta). *Journal of Phycology* 36:387-393.
- Fawley, M.W., Qin, Mingbo, and Yun, Y. 1999. The relationship between *Pseudoscurfieldia marina* and *Pycnococcus provasolii* (Prasinophyceae, Chlorophyta): evidence from 18S rDNA sequence data. *Journal of Phycology* 35:838-843.
- Kang, T.J. and Fawley, M.W. 1997. Variable (CA/GT)<sub>n</sub> simple sequence repeat DNA in the alga *Chlamydomonas*. *Plant Molecular Biology* 35:943-948.
- Knauber, D.C., Berry, E.S. and Fawley, M.W. 1996. Ribosomal RNA-based oligonucleotide probes to identify marine green ultraphytoplankton. *Journal of Eukaryotic Microbiology* 43:89-94.
- Fawley, M.W. and Buchheim, M.A. 1995. Loroxanthin, a phylogenetically useful character in *Chlamydomonas* and other chlorophycean flagellates. *Journal of Phycology* 31:664-667.
- Jiao, S. and Fawley, M.W. 1994. A cDNA clone encoding a light-harvesting protein from *Mantoniella squamata*. *Plant Physiology* 104:797-8.
- Fawley, M.W. 1993. Structure of a prasinolanthin-chlorophyll *a/b* light-harvesting complex from the green flagellate *Pseudoscurfieldia marina* (Micromonadophyceae). *Biochimica et Biophysica Acta* 1183:85-90.
- Fawley, M.W. 1992. Photosynthetic pigments of *Pseudoscurfieldia marina* and select green flagellates and coccoid ultraphytoplankton: implications for the systematics of the Micromonadophyceae (Chlorophyta). *Journal of Phycology* 28:26-31.
- Fawley, M.W., Douglas, C.A., Stewart, K.D. and Mattox, K.R. 1990. Light-harvesting pigment-protein complexes of the Ulvophyceae (Chlorophyta): Characterization and phylogenetic significance. *Journal of Phycology* 26:186-195.
- Fawley, M.W. 1989. A new form of chlorophyll *c* involved in light-harvesting. *Plant Physiology* 91:727-732.
- Fawley, M.W., Stewart, K.D. and Mattox, K.R. 1986. The novel light-harvesting pigment-protein complex of *Mantoniella squamata* (Chlorophyta): phylogenetic implications. *Journal of Molecular Evolution* 23:168-176.
- Fawley, M.W. and Grossman, A.R. 1986. Polypeptides of a light-harvesting complex of the diatom *Phaeodactylum tricorutum* are synthesized in the cytoplasm of the cell as precursors. *Plant Physiology* 81:149-155.

### *Presentations since 2006 (UAM)*

#### Invited Presentations

- Fawley, K.P. and Fawley, M.W. The UAM Herbarium: Past, Present and Future. Presentation to the Arkansas Native Plant Society, University of Arkansas at Monticello, 04/2015
- Fawley, M.W. and Fawley, K.P. Species Concepts and Definitions for Eukaryotic Microorganisms. University of Ostrava, Czech Republic. 04/2014
- Fawley, K.P. and Fawley, M.W. The Itasca Microbial Observatory: Diversity and Ecology of Coccoid Algae, The Charles University in Prague, Prague, Czech Republic. 04/2014

Fawley, K.P. and Fawley, M.W. Species Concepts and Definitions for Eukaryotic Microorganisms.  
Department of Biological Sciences, University of Tulsa. University of Tulsa, 02/2013

Fawley, M.W. and Fawley, K.P. Species Concepts and Definitions for Eukaryotic Microorganisms.  
Department of Biology, University of Arkansas at Little Rock, 02/2012.

Fawley, K.P., Fawley, M.W., Eliáš, M., Nemjová, K. and Probst, N. Phylogeny of the Eustigmatophyceae.  
School of Forest Resources, University of Arkansas at Monticello, 02/2011

Presentations at International Meetings

6th European Phycological Congress. London, 08/2015.

Amaral, R.F.<sup>1\*</sup>, Fawley, K.P.<sup>2</sup>, Němcová, Y.<sup>3</sup>, Ševčíková, T.<sup>4</sup>, Lukešová, A.<sup>5</sup>, Santos, Lília M.A.<sup>1</sup>, Fawley, M.W.<sup>2</sup>, and Eliáš, M.<sup>4</sup>. **Diversity and revised taxonomy of the Pseudellipsoidion group – a recently recognized major clade of eustigmatophyte algae.** University of Coimbra, Coimbra, Portugal<sup>1</sup>, University of Arkansas at Monticello<sup>2</sup>, Charles University, Prague, Czech Republic<sup>3</sup>, University of Ostrava, Czech Republic<sup>4</sup> and Institute of Soil Biology, Academy of Sciences of the Czech Republic, České Budějovice, Czech Republic<sup>5</sup>.

50<sup>th</sup> Meeting of the Phycological Society of America, Philadelphia, PA, 08/2015.

Fawley, M.\* , Jameson, I. and Fawley, K. **Phylogeny of Nannochloropsis (Eustigmatophyceae) including strains from the Australian National Algae Culture Collection.** University of Arkansas at Monticello<sup>1</sup> and Australian National Algae Culture Collection, CSIRO National Research Collections Australia, Hobart, Tasmania, Australia<sup>2</sup>. \*oral presentation

Phycological Society of America Annual Meeting, Seattle, WA, 07/2011.

Fawley, K.P., Fawley, M.W., Eliáš, M., Nemjová, K. and Probst, N. Phylogeny of the Eustigmatophyceae.  
Fawley, M.W., Buchheim, M.A., and Zechman, F.W. Phylogeny of the Pedinophyceae (Chlorophyta).

Phycological Society of America, Michigan State University, E. Lansing, MI, 07/2010

Fawley, K.P., Fawley, M.W., Eliáš, M., Nemjová, K. and Probst, N.. Phylogeny of Freshwater Eustigmatophyceae.

Fawley, M.W., Fawley, K. P. and Hegewald, E. Species characterization in *Desmodesmus* (Chlorophyceae) using nuclear ITS and plastid rbcL sequence data combined with morphological analyses.

International Society for Evolutionary Protistology, Kanazawa City, Japan, 07/2010.

Eliáš, M., Fawley, K.P., Nemjová, K., Fawley, M.W., Němcová, Y., Probst, N., Fišerová, M., and Bailey, J.C. Probing into the Phylogenetic Diversity of the Neglected Algal Class Eustigmatophyceae (Ochrophyta, Stramenopiles).

Annual Meeting of the American Society for Virology, Ithaca, NY. 07/2008

Acosta-Leal, R., Bryan, B. K., Fawley, M. W., and Rush, C. M. 2008. Dynamics of Beet necrotic yellow vein virus (BNYVV) quasispecies during host adaptation.

## Presentations at Regional Meetings

### Arkansas Academy of Science, , Henderson State University, Arkadelphia, AR. 04/ 2015.

Bernal, R.\*, Davidson, F.\*, Fawley K. and Fawley M. Evaluation of the plastid gene *ccsA* for use in delimiting species of the alga, *Nannochloropsis* (Eustigmatophyceae). \*student poster presentation

Austin, J., Cordona-Otero, A., Taylor M., Fawley, K. and Fawley M. Diversity of freshwater *Nannochloropsis* (Eustigmatophyceae) evaluated by sequence analysis of the plastid gene *ccs1*. \*student poster presentation

Peterson, N., Rivera, F., Vincent S., Hill M., Fawley, K. and Fawley, M. A comparison of the communities of the alga, *Nannochloropsis* (Eustigmatophyceae), in different lakes in North Dakota and Minnesota. \*student poster presentation

Fawley, M. and Fawley, K. Characterization of algal strains from the Eustigmatophyceae isolated from Arkansas.  
(poster)

### UAM Research and Scholarship Forum, 04/ 2015.

Bernal, R., Davidson, F., Fawley K. and Fawley M. Evaluation of the plastid gene *ccsA* for use in delimiting species of the alga, *Nannochloropsis* (Eustigmatophyceae). \*student poster presentation

Austin, J., Cordona-Otero, A., Taylor M., Fawley, K. and Fawley M. Diversity of freshwater *Nannochloropsis* (Eustigmatophyceae) evaluated by sequence analysis of the plastid gene *ccs1*. \*student poster presentation

Peterson, N., Rivera, F., Vincent S., Hill M., Fawley, K. and Fawley, M. A comparison of the communities of the alga, *Nannochloropsis* (Eustigmatophyceae), in different lakes in North Dakota and Minnesota. \*student poster presentation

### Arkansas Academy of Sciences Annual Meeting, Searcy, AR, 04/2014.

Fawley, K.P., Witsell, C.T. and Fawley, M.W.. The Status of *Cardamine dissecta* (Brassicaceae) in Arkansas.

### Student Research and Scholarship Forum, UAM, Monticello, AR, 11/2013.

Collins, M., Jones, N., Lindsey, M., Mendosa, A., Roberts, C., Garmon, J., Fawley, K. and Fawley, M.  
Evaluation of DNA Sequences from the Nuclear Large Subunit Ribosomal RNA gene for Use in Delimiting Species of the Alga, *Nannochloropsis* (Eustigmatophyceae). student poster presentation

### UAM School of Education STEM Open House, 09/2013.

Collins, M., Jones, N., Lindsey, M., Mendosa, A., Roberts, C., Garmon, J., Fawley, K. and Fawley, M.  
Evaluation of DNA Sequences from the Nuclear Large Subunit Ribosomal RNA gene for Use in Delimiting Species of the Alga, *Nannochloropsis* (Eustigmatophyceae). student poster presentation

### ARK-LSAMP Spring Conference, Little Rock, AR, 04/2013

Newhouse, K.V., Fawley, K. P., Fawley, M.W. and Prescott, D.A. Digitization of the UAM Herbarium: Bringing Analog Data into the Digital Age. Poster presented by K. Newhouse.

Collins, M., Jones, N., Lindsey, M., Mendosa, A., Roberts, C., Garmon, J., Fawley, K. and Fawley, M.  
Evaluation of DNA Sequences from the Nuclear Large Subunit Ribosomal RNA gene for Use in Delimiting Species of the Alga, *Nannochloropsis* (Eustigmatophyceae). student poster presentation

Arizona 11<sup>th</sup> Annual Student Research Conference, Tempe, Arizona, 03/2013.

Reyes, R.M., Fawley, K. P., Witsell, C.T. and Fawley, M.W. Evidence of Hybridization Between Two Taxa of the Genus *Cardamine* (Brassicaceae) in Arkansas. Poster presented by R. Reyes.

ARK-LSAMP Spring Conference, Little Rock, AR, 04/2012

Brown, D., Crift, R., Newhouse, K., Ohannes, M., Fawley, K., and Fawley, M. Evaluation of the DNA Sequences from the Nuclear Ribosomal Internal Transcribed Spacer Region for Use in Delimiting Species of the alga, *Nannochloropsis* (Eustigmatophyceae). Student poster presentation

Garcia, E., White, D., Fawley, K. and Fawley, M. 2012. The Use of Plastid Barcoding DNA Sequences to Characterize the Sedge Species, *Carex nigromarginata* and *Carex floridana*. student poster presentation

Arkansas Academy of Sciences Annual Meeting, Magnolia, AR, 04/2012.

Fawley, K.P., Witsell, C.T., Fawley, M.W., Breedlove, J.S., Brockman, R.J. , Humphrey, A.C., Lawson, J.M., McCallie, K.N., Prescott, D.A., Rushing, J.T. and Whitaker, J.M. Analyses of the taxonomic status of the Arkansas endemic toothwort, *Cardamine angustata* var. *ouachitana* (Brassicaceae).

Posters at the Capitol, Little Rock, AR, 02/2012.

Fawley, K.P., Witsell, C.T., Fawley, M.W., Breedlove, J.S., Brockman, R.J., Humphrey, A.C., Lawson, J.M., McCallie, K.N., Prescott, D.A., Rushing, J.T. and Whitaker, J.M. *Cardamine ouachitana*, a new Arkansas Endemic Plant Revealed by DNA Sequence Analysis. Poster presentation by Drew Prescott.

Probst, N., Fawley, K.P., Fawley, M.W., Eliáš, M. and Nemjová, K. DNA Sequence Analysis in the Algal Class Eustigmatophyceae, a Potential Source of Essential Fatty Acids. Poster presentation by Nathan Probst.

Arkansas INBRE Research Conference, Fayetteville, AR, 10/2011.

Probst, Nathan, Fawley, Karen P., Fawley, Marvin. W., Eliáš, Marek, and Nemjová, Katerína. Phylogenetic analysis of newly discovered members of the algal class Eustigmatophyceae. Poster presentation, Nathan Probst.

Arkansas Native Plant Society Spring Meeting, Bentonville, AR, 05/2011

Fawley, M.W. and Fawley, K.P. Presentation to the Arkansas Native Plant Society on the new Botanical Research and Herbarium Building and information on a new Arkansas endemic species.

ARK-LSAMP Spring Conference, Little Rock, AR, 04/2011

Criner, K., De La Cruz, A., Jacobs, L., Jimenez, E., White, D., Fawley, K.P. and Fawley, M.W. Further studies of heterogeneity in the nuclear ribosomal internal transcribed spacer region of the sedges, *Carex nigromarginata* and *Carex floridana*. student poster presentation

Garcia, E., Fawley, K.P. and Fawley, M.W. Heterogeneity of the Ribosomal External Transcribed Spacer Region in some *Carex* species. Poster presented by Elia Garcia.

ASGC /NASA EPSCoR Annual Meeting ASGC, Morrilton, AR, 04/2011

Probst, N., Fawley, M.W. and Fawley, K.P. Diversity of Freshwater Eustigmatophyceae. Poster presented by Nathan Probst.



Arkansas Academy of Sciences Annual Meeting, Monticello, AR, 04/2011.

Fawley, M.W. and Fawley, K.P. Ribosomal RNA Spacer Sequences as a Tool to Identify *Carex* Species (Sedges)

Fawley, K.P., Fawley, M.W., Eliáš, M., Nemjová, K. and Probst, N. Phylogeny of Freshwater Eustigmatophyceae.

Probst, N., Fawley, M.W. and Fawley, K.P. Diversity of Freshwater Eustigmatophyceae. Poster presented by Nathan Probst.

ARK-LSAMP Spring Conference, Philander Smith College, Little Rock, AR, 04/2010

Bridges, A., Bush, E., Garcia, E., Fawley, K. and Fawley, M. Evidence for heterogeneity in the nuclear ribosomal internal transcribed spacer region of some *Carex* species (sedges).. School of Mathematical and Natural Sciences, University of Arkansas at Monticello, Monticello, AR. Student poster presentation.

ASGC /NASA EPSCoR Annual Meeting ASGC, Morrilton, AR, 04/2010

Probst, N., Fawley, M., and Fawley, K. Diversity of Freshwater Eustigmatophyceae. Student poster presentation.

ARK-LSAMP Spring Conference, Little Rock, AR, 04/2009

Garcia, J., Fawley, K.P. and Fawley, M.W. Evidence for a new hybrid species of *Carex* (Cyperaceae). Student poster presentation.

Grant, J., Fawley, K.P. and Fawley, M.W. Utility of the nuclear ribosomal external transcribed space region for the identification of *Carex* species (Cyperaceae), Student poster presentation.

ASGC /NASA EPSCoR Annual Meeting, Morrilton, AR, 04/2009

Prior, S., Fawley, M.W. and Fawley, K.P. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids. Student oral presentation.

Arkansas Academy of Sciences Annual Meeting, Clarksville, AR, 04/2009

Prior, S., Fawley, M.W. and Fawley, K.P. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids. Student oral presentation.

Arkansas INBRE Research Conference, Fayetteville, AR, 11/2008

Prior, S., Fawley, M.W. and Fawley, K.P. DNA sequence analysis of freshwater Eustigmatophyceae, a potential source of essential fatty acids. Student oral presentation.

Arkansas INBRE Research Conference, Fayetteville, AR, 11/2007

Henley, M.L., Fawley, K.P., and Fawley, M.W. Identification of *Carex* (sedges) species using ribosomal ITS DNA sequence data. Student poster presentation.

Arkansas Academy of Sciences, Arkansas Tech University, Russellville, AR, 04/2007

Fawley, K.P., Fawley, M.W., Bacon, E.J. and Hegewald, E. Preliminary survey of the *Desmodesmus* (Chlorophyta) of Lake Chicot, including one possible new species.

*Current collaborators:*

Mark Buchheim, Univ. of Tulsa; Heather Owen, Univ. of Wisconsin, Milwaukee; Hilary McManus, Le Moyne College; Curt Pueschel, SUNY Binghamton; Karen Fawley, UAM; Theo Witsell, Arkansas Natural Heritage Commission; Pierre Metzger, Ecole Nationale Supérieure de Chimie de Paris; Eberhard Hegewald, Germany; Eric Sundell, UAM; Marek Eliáš, University of Ostrava, Czech Republic; Ian Jameson, Australia; Raquel Amaral, University of Coimbra, Coimbra, Lília M.A Santos, Portugal; Yvonne Němcová, Charles University, Prague, Czech Republic; Alena Lukešová, Institute of Soil Biology, Academy of Sciences of the Czech Republic, České Budějovice, Czech Republic.

### *Past Graduate Students:*

Shuping Jiao, M.S., Pioneer Seeds, Iowa  
Yue Yun, M.S., Ph.D. program, Washington University  
Tae-Jin Kang, Ph.D., Korea  
Karen Phillips Fawley, Ph.D., UAM  
Christine Donohue, M.S., North Dakota State University  
Megan Jaskowiak, Ph.D., Cincinnati, Ohio  
Michelle Dean, M.S., Milwaukee, Wisconsin  
Joni Johnson, M.S., Lansing, MI.

### *Service*

#### *At the University of Arkansas at Monticello*

Director, UAM Research Program for Minority Students, 2013-present  
Herbarium Building Committee, 2012-present  
Contact person for Udall Scholarship program, 2011-present  
Promotion and Tenure Committee, 2011  
Arkansas Space Grant Consortium, UAM campus representative, 2010-present  
Promotion and Tenure Committee, 2010, Chair  
Chemistry Search Committee, 2009, Chair  
Biology Search Committee, 2008, Chair  
UAM-ERZ Summer Science Camp, 2008  
Arkansas Louis Stokes Alliance for Minority Participation, UAM Coordinator, 2008-2013

#### *At North Dakota State University*

University Computer Planning and Goals Committee, 1998-2006. Chair of the Instructional Technology Subcommittee  
Plant Physiology Search Committee, 1998-1999, Chair  
Cellular and Molecular Biology Graduate Program Steering Committee, 1996-1998  
Safety Officer, 1989-1998  
Editorial Board, *Journal of Phycology*, 1995-1997  
Director of the Botany/Biology Graduate Program, 1990-1998  
College of Science and Mathematics Teaching Evaluation Committee, 1989  
College of Science and Mathematics Promotion, Tenure and Evaluation Committee, 1989-1991  
College of Science and Mathematics Student Progress Committee, 1988-2006  
College of Science and Mathematics Student Recruiting Committee, 1988-1991  
University Chemical Safety Committee, 1989-2006  
University Bush Planning Grant Committee, 1989-1990  
Biology Committee, 1987-1991  
Plant Cell Biology Search Committee, 1987  
College of Science and Mathematics Student/Faculty Relations, 1986-1988

#### *Manuscript Reviewer for:*

*Biochimica et Biophysica Acta*  
*BioTechniques*  
*Biotechnology Progress*

*Environmental Microbiology*  
*European Journal of Phycology*  
*Journal of Phycology*  
*Journal of the North American Benthological Society*  
*Phycologia*  
*Phycological Research*  
*PLOS One*  
*Protist*  
*The Southwestern Naturalist*

*Proposal Reviewer for:*

NSF Systematic Biology Program  
NSF Biological Oceanography Program  
NSF Biotic Surveys and Inventories Program  
NSF Biological Instrumentation Program  
NSF Office of Polar Programs  
NSF International Programs  
Natural Sciences and Engineering Research Council of Canada  
NSF Systematic Biology Program Panel, 2006

*Other service to the profession:*

Invited participant in NSF survey on the peer review process and award management, 2007 Organized symposium on the green algae at the Phycological Society of America Annual Meeting, Williamsburg VA, 2004

*Society membership:*

Phycological Society of America  
International Phycological Society  
Arkansas Native Plant Society  
Arkansas Academy of Science  
Botanical Society of America

***Community Involvement:***

Board Vice-chair, Dakota Montessori School, 1987-1988; Baseball coach, 1990-1998; Chair, Social Action Committee, Fargo-Moorhead Unitarian Universalist Church, 2002-2006; Leadership Council, Fargo-Moorhead Unitarian Universalist Church, 2004-2006; Advisory committee, Probstfield Organic Community Gardens, 2003-2006; Organizing committee, South Agassiz Resource Council, 2004-2005. Presented Basic Botany Lecture for Master Gardner Training Course, 2008-2009; 2014-2015; Monticello Middle School Algae Project.

## Curriculum Vitae

**John L. Hunt, Ph.D.**  
**School of Mathematical and Natural Sciences**  
**University of Arkansas at Monticello**  
**Monticello, AR 71656**  
870-460-1466  
E-mail: huntj@uamont.edu

### Work Experience:

- 2015-Current Professor, University of Arkansas at Monticello, Monticello, AR.
- 2014-Current, Director of Pre-Medical Studies, University of Arkansas at Monticello, Monticello, AR.
- 2010-2015 Associate Professor, University of Arkansas at Monticello, Monticello, AR.
- 2004-2010 Assistant Professor, University of Arkansas at Monticello, Monticello, AR. Granted tenure, 2010.
- 1996-2004 Instructor and Graduate Teaching Assistant, Auburn University, Auburn, AL.
- 2002 State Lands Division, Alabama Department of Conservation and Natural Resources, Montgomery, AL. Field survey of bats around Lake Tensaw, AL.
- 2000-2001 Oil and Gas Consortium, Artesia, NM. Field survey to determine status of populations of the lesser prairie-chicken (*Tympanuchus pallidicinctus*) in southeastern New Mexico.
- 1997 Auburn University, AL. Participated in endangered gray bat habitat evaluation under the direction of Dr. Troy Best.
- 1979-1996 Genuine Parts Company, Little Rock, AR. Managed various retail and wholesale auto parts sales locations. Continued in a part-time capacity until 1999.

### Education:

- 2004 Auburn University. Ph.D. Dissertation subject: Investigation into the decline of populations of the lesser prairie-chicken (*Tympanuchus pallidicinctus* Ridgway) in southeastern New Mexico. Major professor—Dr. Troy L. Best. Awarded Presidential Fellowship—1999. Graduate Dean's Award for Excellence—2000-2001. Named an Outstanding Doctoral Student—2002. GPA: 4.0.
- 1999 Auburn University. M.S. in Zoology. Thesis: Food habits of scaled quail, northern bobwhites, and mourning doves in southeastern New Mexico. Major professor—Dr. Troy L. Best. Department of Wildlife and Zoology Outstanding

Graduate Teaching Award—1999. GPA: 4.0.

1996 University of Arkansas at Little Rock. B.S. in Biology (*Summa cum laude*).  
Minor—History. Martha Couch Givens Award (Outstanding Senior in Biology)—  
1996. GPA: 3.962.

1977 Paron High School, Paron, AR. Valedictorian.

### **Research Experience:**

2011-Current Study of fecal hormone techniques in bats with Dr. Matt Grilliot and Dr. Christopher Sims.

2011-2013 Survey of diversity of dung beetles in southeastern Arkansas.

2010-2012 Study of reproductive habits of pocket gophers in southern Arkansas and northern Louisiana.

2009-2012 Impact of altered forms of *Drosophila* kinase p70S6 on cell size. Co-investigator with Dr. Mary Stewart.

2007-Current Survey of mammalian diversity in southeastern Arkansas.

2006-Current Study of conservation status of anhinga (*Anhinga anhinga*) with Dr. Christopher Sims.

2005 Survey of vertebrates at Gulf Shores State Park, Alabama.

2001-2004 Participated in study of distribution of bats in Alabama.

2000-Current Investigation into environmental effects on declines in lesser prairie chickens (*Tympanuchus pallidicinctus*). Involved in gathering and analysis of data on vegetation, grazing by livestock, climate, noise pollution, habitat fragmentation, and effects of oil exploration in habitat of lesser prairie chickens.

1999-2000 Participated in study of winter roosts of Mexican free-tailed bats in northern Mexico. Involved in location, measurement, and evaluation of condition of winter roosts of bats from Carlsbad Caverns National Park, NM, and collection and preparation of museum specimens.

1998 Volunteered in study of song rates of house finches at Auburn University, AL.

- 1997-2000 Participated in study of mammals in Colima, Mexico. Involved in preparation of museum specimens of rodents and bats.
- 1997-2000 Feeding habits study of Mexican free-tailed bats at Carlsbad Caverns National Park, NM. Participated in mist-netting and radio-tracking of bats.
- 1997-1999 Food habits study of three southwestern desert birds in Lea and Eddy Counties, NM. Involved in identification and quantification of food items of northern bobwhites, scaled quail, and mourning doves. Supervised work of twelve students who assisted on the project.
- 1996 Participated in study of small mammal population at Camp Robinson, AR. Assisted in trapping of rodents.
- 1995-1996 Field and museum work under Dr. William Baltosser. Assisted in capture and preparation of avian specimens.
- 1995-1996 Thermoregulation study of nine-banded armadillo, Big Goat Island, AR. Involved in capture, marking, recapture, and tracking of armadillos for measurement of temperature cycles.
- 1994-1995 Volunteered in population survey of nine-banded armadillo at Arkansas Post National Monument, AR. Involved in capture, marking, and recapture of armadillos.

### **Teaching Experience:**

Professor of Biology at the University of Arkansas at Monticello, 2015-current; Associate Professor of Biology, 2010-2015; Assistant Professor of Biology, 2004-2010. Taught classes, participated in curriculum development, acted as co-sponsor of the Biology Club, Pre-Med Club and Sigma Zeta, served as primary Pre-Med Advisor. Named Pre-Medical Director, 2014. Won Hornaday Award for Outstanding Faculty, 2014. Named Alpha Chi Rookie of the Year in 2005. Member of graduate faculty. Served on Faculty Research Committee, Library Committee, and Graduate Council. Chair of Biology Curriculum Committee. Served on search committees for Provost and Chancellor. Served as chair of Search Committee for Dean of School of Mathematical and Natural Sciences. Served as chair of Biology Search Committee (twice). Served on Rockefeller Lecture Committee. Faculty Representative for Goldwater Scholarship Program.

Served on graduate committees of M.S. students in the School of Forest Resources of the University of Arkansas at Monticello: Tiffany Whitsitt, Nigel Seidel, Zachary Robinson, Danielle Techentin, Emily Boyd, Kevin Wood, and Kathryn Brautigam.

Classes taught:

Anatomy and Physiology II, Biogeography, Comparative Anatomy, Desert Ecology, Environmental Science, Evolution, General Zoology, Introduction to Biological Science, Mammalogy, Mammalogy for Graduate Students, Principles of Biology II, Seminar in Biology, Senior Research.

Special Topics Courses: Marine Ornithology, Fauna of Costa Rica, Fauna of the Canyonlands, Scientific and Cultural Perspectives on Evolution, Vertebrate Population Analysis, Fauna of the Canadian Rockies, Fauna of Yellowstone, Fauna of Hawaii, Anatomy of the Shark, Preparation of Biological Specimens.

Labs taught:

Anatomy and Physiology II, Biological Science, Comparative Anatomy, General Zoology, Mammalian Anatomy, Mammalogy, Principles of Biology II.

Substitute lecturer:

Ornithology, Regional Flora.

During graduate school at Auburn University, 1996-2004, taught several undergraduate courses, acted as graduate teaching assistant for numerous labs, and was a substitute lecturer for several courses. Won Outstanding Graduate Teaching Award, 1999.

Classes taught:

Comparative Anatomy, Natural History of Vertebrates, Evolution and Systematics, Mammalogy (co-instructor).

Substitute lecturer:

Comparative Anatomy, Human Anatomy, Mammalogy, Evolution and Systematics, General Ecology, Vertebrate Biodiversity.

Labs taught:

Anatomy and Physiology, Comparative Anatomy, Mammalian Physiology I and II, Mammalogy, Human Anatomy, Natural History of Vertebrates

**Professional Organizations:**

American Society of Mammalogists, Arkansas Academy of Science, Association of Field Ornithologists, Louisiana Academy of Sciences, North American Grouse Partnership, Southeastern Bat Diversity Network, Southwestern Association of Naturalists.

**Professional Service:**

Member of Board of Governors of the Ouachita Mountains Biological Station. 2011-Current.

Reviewer, textbook artwork, W.H. Freeman Publishing Company, New York. 2010.

Local Organizing Committee Member—Wildlife Society Southeastern Student Conclave, Little Rock, AR. March 26-28, 2009.

Chair of Public Relations Committee, Southwestern Association of Naturalists, 2007-Current.

Instructor—English as a Second Language, First United Methodist Church, Monticello, AR, 2006-2010.

Local Organizing Committee Member—Tenth Annual Colloquium on Conservation of Mammals in the Southeastern United States, Guntersville, AL. February 25, 2000.

Manuscript reviewer—*Prairie Naturalist*, *Southeastern Naturalist*, *Southwestern Naturalist*, *Journal of Wildlife Management*, *Journal of the Arkansas Academy of Science*, *Mammalia*.

### **Peer-Reviewed Publications:**

Grilliot, M. E., J. L. Hunt, C. G. Sims, and C. E. Comer. 2014. New host and location record for the bat bug *Cimex adjunctus* Barber 1939, with a summary of previous records. *Journal of the Arkansas Academy of Science*, 68:149-151.

Connior, M. B., D. C. Cagle, H. E. Peek, C. R. Ellington, and J. L. Hunt. 2014. Reproductive cycle of Baird's pocket gopher (*Geomys breviceps*) in northern Louisiana. *The Southwestern Naturalist*, 59:115-117.

Kelley, J. B., J. L. Hunt, and M. B. Connior. 2013. Scarab beetles (Coleoptera: Scarabaeidae) in the dung of native Arkansas mammals. *Journal of the Arkansas Academy of Science*, 67:66-69.

Stewart, M. J., and J. L. Hunt. 2012. Effects of *Drosophila* ribosomal protein S6 kinase on wing growth. *Journal of the Arkansas Academy of Science*, 66:141-149.

Hunt, J. L., and T. L. Best. 2010. Vegetative characteristics of active and abandoned leks of lesser prairie-chickens (*Tympanuchus pallidicinctus*) in southeastern New Mexico. *The Southwestern Naturalist*, 55:477-487.

Hunt, J. L., J. E. Morris, and T. L. Best. 2004. *Nyctomys sumichrasti*. *Mammalian Species*, 754:1-6.

Smith, K. G., and J. L. Hunt. 2004. On the use of spleen mass as a measure of avian immune system strength. *Oecologia*, 138:28-31.



- Hunt, J. L., L. A. McWilliams, T. L. Best, and K. G. Smith. 2003. *Eumops bonariensis*. *Mammalian Species*, 733:1-5.
- Best, T. L., K.E. Geluso, J. L. Hunt, and L. A. McWilliams. 2003. The lesser prairie chicken (*Tympanuchus pallidicinctus*) in southeastern New Mexico: a population survey. *The Texas Journal of Science*, 55:225-234.
- Best, T. L., J. L. Hunt, L. A. McWilliams, and K. G. Smith. 2002. *Eumops auripectus*. *Mammalian Species*, 708:1-5.
- McWilliams, L. A., T. L. Best, J. L. Hunt, and K. G. Smith. 2002. *Eumops dabbenei*. *Mammalian Species*, 707:1-3.
- Hunt, J. L., and T. L. Best. 2001. Foods of northern bobwhites (*Colinus virginianus*) in southeastern New Mexico. *Southwestern Naturalist*, 46:239-243.
- Hunt, J. L., and T. L. Best. 2001. Foods of scaled quail (*Callipepla squamata*) in southeastern New Mexico. *The Texas Journal of Science*, 32:147-156.
- Best, T. L., J. L. Hunt, L. A. McWilliams, and K.G. Smith. 2001. *Eumops maurus*. *Mammalian Species*, 667:1-3.
- Best, T. L., J. L. Hunt, L. A. McWilliams, and K.G. Smith. 2001. *Eumops hansae*. *Mammalian Species*, 687:1-3.

#### **Published Book Reviews:**

- Hunt, J. L. *In press*. Wild Life: the institution of nature, by Irus Braverman (review). *Choice*.
- Hunt, J. L. 2015. The action plan for Australian mammals 2012, by John C. Z. Woinarski, Andrew A. Burbidge, and Peter L. Harrison (review). *Choice*, 52:5105.
- Hunt, J. L. 2015. Darwin's dice: the idea of chance in the thought of Charles Darwin, by Curtis Johnson (review). *Choice*, 52:3644.
- Hunt, J. L. 2015. Evolution: components and mechanisms, by David Zeigler (review). *Choice*, 52:2533.
- Hunt, J. L. 2014. Apes and human evolution, by Russell H. Tuttle (review). *Choice*, 52:0846.
- Hunt, J. L. 2014. The accidental species: misunderstandings of human evolution, by Henry Gee (review). *Choice*, 51:4424.

- Hunt, J. L. 2014. Stephen J. Gould: the scientific legacy, edited by Gian Antonio Danieli, Alessandro Minelli, and Telmo Pievani (review). *Choice*, 51:3832.
- Hunt, J. L. 2013. Evolutionary perspectives on pregnancy, by John C. Avise (review). *Choice*, 50:6761.
- Hunt, J. L. 2013. Physiological adaptations for breeding in birds, by Tony D. Williams (review). *Choice*, 50:3268.
- Hunt, J. L. 2012. Cells to civilization: the principles of change that shape life, by Enrico Coen (review). *Choice*, 50:2052.
- Hunt, J. L. 2012. Forerunners of mammals: radiation, histology, biology, edited by Anusuya Chinsamy-Turan (review). *Choice*, 49:2090.
- Hunt, J. L. 2012. Winged sentinels: birds and climate change, by Janice Wormworth and Cagan Sekercioglu (review). *Choice*, 49:1292.
- Hunt, J. L. 2011. Mammals of Colorado, by David M. Armstrong, James P. Fitzgerald, and Carron A. Meaney (review). *Choice*, 49:708.
- Hunt, J. L. 2011. Listed: dispatches from America's Endangered Species Act, by Joe Roman (review). *Choice*, 49:143.
- Hunt, J. L. 2011. Nightjars of the world: potoos, frogmouths, oil-bird and owlet-nightjars, by Nigel Cleere (review). *Choice*, 48:1318-1319.
- Hunt, J. L. 2010. Dogs: domestication and the development of a social bond, by Darcy F. Morey (review). *Choice*, 48:532.
- Hunt, J. L. 2010. Recent mammals of Alaska, by S. O. MacDonald and Joseph A. Cook (review). *Choice*, 47:1099.
- Hunt, J. L. 2009. Remarkable creatures: epic adventures in the search for the origins of species, by Sean B. Carroll (review). *Choice*, 47:133.
- Hunt, J. L. 2009. The better to eat you with: fear in the animal world, by Joel Berger (review). *Choice*, 46:1530.

### **Technical Reports:**

- Best, T. L., C. H. Kilgore, L. A. McWilliams, M. D. Gay, and J. L. Hunt. 2005. Survey of vertebrates in the maritime forest, Gulf State Park, Baldwin County, Alabama. Auburn, Alabama. 10 pp.

Hunt, J. L., and T. L. Best. 2004. Investigation into the decline of populations of the lesser prairie-chicken (*Tympanuchus pallidicinctus*) on lands administered by the Bureau of Land Management, Carlsbad Field Office, New Mexico: final report. Carlsbad, New Mexico. 365 pp.

Hunt, J. L., and T. L. Best. 2003. Annual report: investigation into the decline of populations of the lesser prairie chicken (*Tympanuchus pallidicinctus*) on lands administered by the Bureau of Land Management, Carlsbad Field Office. Carlsbad, New Mexico. 102 pp.

Hunt, J. L., and T. L. Best. 2002. Annual report: investigation into the decline of populations of the lesser prairie chicken (*Tympanuchus pallidicinctus*) on lands administered by the Bureau of Land Management, Carlsbad Field Office. Carlsbad, New Mexico. 90 pp.

Hunt, J. L., and T. L. Best. 2001. Annual report: investigation into the decline populations of the lesser prairie chicken (*Tympanuchus pallidicinctus*) on lands administered by the Bureau of Land Management, Carlsbad Field Office. Carlsbad, New Mexico. 27 pp.

#### **Manuscripts in Preparation:**

Hunt, J. L., and T. L. Best. A bibliography of the genus *Tympanuchus*.

Hunt, J. L., and T. L. Best. Foods of mourning doves (*Zenaida macroura*) in southeastern New Mexico.

Hunt, J. L., and T. L. Best. Overlap in diet and evidence for competition among three species of birds in southeastern New Mexico.

Hunt, J. L., and T. L. Best. Factor analysis of variables involved in decline in populations of lesser prairie-chickens (*Tympanuchus pallidicinctus*) in southeastern New Mexico.

#### **Grants Received:**

2014. University of Arkansas at Monticello Faculty Research Award. Sexual dimorphism in the thirteen-lined ground squirrel (*Ictodomys tridecemlineatus*). \$1368.

2013. University of Arkansas at Monticello Faculty Research Award. Monitoring Rafinesque's big-eared bats for toxin exposure. \$1,400.

2013. University of Arkansas Centennial Opportunity Award. Funding of Marine Biology/Ornithology trip to Gerace Research Station, Bahamas. \$4,250.

2012. University of Arkansas at Monticello Faculty Research Award. Validation of fecal hormone analysis techniques in bats. \$1,511.

2012. EPSCoR Fellowship Grant. Survey of dung beetles associated with swamp rabbits. \$1,852.50.
2011. University of Arkansas at Monticello Faculty Research Award. Bobwhite migration and population trends in Sharp County, Arkansas. \$928.
2010. University of Arkansas at Monticello Faculty Research Award. Pocket gopher reproductive cycles and burrow inquilines in Arkansas and Louisiana. \$1,496.
2008. University of Arkansas at Monticello Faculty Research Award. Road-kill survey of mammalian diversity in southeastern Arkansas. \$2,000.
2007. University of Arkansas at Monticello Faculty Research Award. Preliminary survey of mammalian diversity in southeastern Arkansas. \$2,000.
2006. University of Arkansas at Monticello Faculty Research Award. Livestock road use and destruction of habitat of lesser prairie-chicken (*Tympanuchus pallidicinctus*). \$1,800.
2005. University of Arkansas at Monticello Faculty Research Award. (Co-investigator with Christopher G. Sims). Conservation status of anhinga in Arkansas. \$2,150.
- 2001-2003. Bureau of Land Management. (Co-investigator with Troy L. Best). Investigation into decline of lesser prairie chickens in New Mexico, \$152,000.

### **Presentations:**

Hunt, J. L. Mammals of Arkansas Post National Historical Park. Biodiversity Day, Arkansas Post National Historical Park, Arkansas, June 1, 2013.

Connior, M. B., D. C. Cagle, H. E. Peek, C. R. Ellington, and J. L. Hunt. Reproductive cycle of Baird's pocket gopher (*Geomys breviceps*) in northern Louisiana. 22<sup>nd</sup> Colloquium on the Conservation of Mammals in the Southeastern United States, Louisville, Mississippi, February 24, 2012.

Stewart, M. J., and J. L. Hunt. Effects of *Drosophila* ribosomal protein s6 kinase on wing growth. Arkansas Academy of Science, Magnolia, Arkansas, April 13, 2012.

Hunt, J. L, and T. L. Best. Vegetative characteristics of active and abandoned leks of lesser prairie-chickens (*Tympanuchus pallidicinctus*) in southeastern New Mexico. Southwestern Association of Naturalists, Stephenville, Texas. April 21, 2007.

Hunt, J. L. Effects of human activities on declines in populations of lesser prairie-chickens in southeastern New Mexico. Invited presentation—Department of Forestry, University of Arkansas—Monticello, Arkansas, February 21, 2007.

Hunt, J. L., T. L. Best, L. A. McWilliams, D. M. Roemer, C. López-González, G. Vellagas-Guzmán, and H. Cuevos-Arellano. Winter roost caves of Mexican free-tailed bats (*Tadarida brasiliensis mexicana*) from Carlsbad Caverns National Park, New Mexico. Eleventh Annual Colloquium on Conservation of Mammals in the Southeastern United States. Memphis, Tennessee. February 23, 2001. Won award for Best Student Presentation.

Hunt, J. L., and T. L. Best. Overlap in diet and evidence for competition among three species of birds in southeastern New Mexico. Southwestern Association of Naturalists, Denton, Texas. April 22, 2000.

Hunt, J. L., T. L. Best, L. A. McWilliams, D. M. Roemer, C. López-González, L. Guabara-Chumacaro, and G. Vellagas-Guzmán. Status of known winter roost caves of Mexican free-tailed bats (*Tadarida brasiliensis mexicana*) from Carlsbad Caverns National Park. Tenth Annual Colloquium on Conservation of Mammals in the Southeastern United States, Guntersville, Alabama. February 25, 2000.

Hunt, J. L., and T. L. Best. Feeding habits of northern bobwhites (*Colinus virginianus*) in southeastern New Mexico. Southwestern Association of Naturalists, Monterrey, Nuevo Leon, Mexico. April 23, 1999.

### **Honors Received:**

2014—Named an Outstanding Faculty Advisor, University of Arkansas at Monticello.

2014—Winner, Hornaday Award for Outstanding Faculty, University of Arkansas at Monticello.

2013—Finalist, Teacher of the Year, Alpha Chi Academic Honor Society, University of Arkansas at Monticello.

2012—Runner-up, Teacher of the Year, Alpha Chi Academic Honor Society, University of Arkansas at Monticello.

2011—Finalist, Teacher of the Year, Alpha Chi Academic Honor Society, University of Arkansas at Monticello.

2010—Runner-up, Teacher of the Year, Alpha Chi Academic Honor Society, University of Arkansas at Monticello.

2009—Runner-up, Teacher of the Year, Alpha Chi Academic Honor Society, University of Arkansas at Monticello.

2005—Faculty Rookie of the Year, Alpha Chi Academic Honor Society, University of Arkansas at Monticello.

2002—Outstanding Doctoral Student, Auburn University.

2001—Best Student Presentation, Eleventh Annual Colloquium on Conservation of Mammals in the Southeastern United States, Memphis, TN.

2000-2001—Graduate Dean's Award for Excellence, Auburn University.

1999—Presidential Fellowship, Auburn University.

1999—Outstanding Graduate Teaching Award, Department of Zoology and Wildlife Science, Auburn University.

1996—Martha Couch Givens Award (Outstanding Senior in Biology), University of Arkansas at Little Rock.

1982, 1986, 1987—Management Achievement Award, Genuine Parts Company, Little Rock, Arkansas.

1981—Most Improved Management Award, Genuine Parts Company, Little Rock, Arkansas.

1977—Valedictorian, Paron High School, Paron, Arkansas.

**Personal:**

Married since 1989 to Sarah McDonald Hunt, a psychological examiner at the Southeast Arkansas Human Development Center, Warren, AR.

**References:**

Dr. Edmund Bacon, School of Mathematical and Natural Sciences (Emeritus), 397 University Drive, University of Arkansas at Monticello, Monticello, AR 71656. 870-460-1166. [bacon@uamont.edu](mailto:bacon@uamont.edu)

Dr. William Baltosser, Department of Biology, University of Arkansas at Little Rock, Little Rock, AR 72204. 501-569-3521. [whbaltosser@ualr.edu](mailto:whbaltosser@ualr.edu).

Dr. Troy Best, Department of Biological Sciences, 331 Funchess Hall, Auburn University, AL 36849. 334-844-9260. [besttro@auburn.edu](mailto:besttro@auburn.edu).

Dr. J. Morris Bramlett, Dean, School of Mathematical and Natural Sciences, 397 University Drive, University of Arkansas at Monticello, Monticello, AR 71656. 870-460-1465. [bramlett@uamont.edu](mailto:bramlett@uamont.edu)

Dr. Christopher G. Sims, School of Mathematical and Natural Sciences, 397 University Drive, University of Arkansas at Monticello, Monticello, AR 71656. 870-460-1664. [simsc@uamont.edu](mailto:simsc@uamont.edu).

*Last modified: May 15, 2015.*

## Glenn Jason Manning

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**Phone:** (870)224-2900

**E-Mail:** manning@uamont.edu

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### **Education:**

- University of Arkansas, Fayetteville. August 1999 – August 2008, Ph.D. Biology.
  - Kansas State University, August 1995 – December 1998, B.S. Biochemistry and B.S. Biology.
  - Butler County Community College, January 1994 – July 1995.
- 

### **Employment**

- University of Arkansas @ Monticello, Associate Professor, August 2007 – Present.
  - University of the Ozarks, Adjunct Professor, August 2006 – December 2006.
  - John Brown University, Adjunct Professor, August 2005 – December 2005.
  - University of Arkansas @ Fayetteville, Graduate Teaching Assistant, August 2009 – June 2007.
- 

### **Dissertation**

- Distribution and Hybridization of Two Communities of Whiptail Lizards (Squamata: Teiidae) in Eastern New Mexico.
- 

### **Professional Development**

#### **Presentations**

- Manning, Glenn J. And J. M. Walker. 2003. Status of *Aspidoscelis neomexicana* (Squamata: Teiidae) at Ft. Sumner, De Baca Co., New Mexico. Missouri Herpetological Association.
- Manning, Glenn J. 2004. Distribution and Hybridization of the New Mexico Whiptail *Aspidoscelis neomexicana* (Squamata: Teiidae) at Ft. Sumner, De Baca Co., New Mexico. Joint Meeting of the ASIH, SSAR, and HL. Norman, OK.
- Manning, Glenn J. 2006. Water Mains, a Death Trap for Small Vertebrates. Joint Meeting of the ASIH, SSAR, and HL. New Orleans, LA.
- Manning, Glenn J. 2007. Distribution and Characterization of Two Tokogenetic Arrays of *Aspidoscelis tessellata* D in San Miguel County, New Mexico. Joint Meeting of the ASIH, SSAR, and HL. St. Louis, MO.
- Manning, Glenn J. 2009. Indiscriminant Sex, A Parthenogenetic Whiptail's Tale. Dallas Fort Worth Herpetological Society.
- Manning, Glenn J. 2008. Is New Mexico *Aspidoscelis tessellata* Pattern Class D a Species, You Decide? Missouri Herpetological Association.

#### **Workshops and Meetings**

- Arkansas Wildlife Action Plan, Mount Magazine State Park, 2010. UCA, 2013.



-SURF Grant review, ADHE Little Rock, 2011-2014.

## **Publications**

- Shen, Zhicheng, Glenn Manning, John C. Reese, and Gerald R. Reeck. 1999. Pectin methylesterase from the rice weevil, *Sitophilus oryzae* (L.) (Coleoptera: Curculionidae: Purification and characterization. *Insect Biochemistry and Molecular Biology* 29: 209!214.
- Taylor, Harry L., James M. Walker, James E. Cordes, and Glenn J. Manning. 2005. Life history characteristics support separate origins of D-designation color pattern classes in parthenogenetic *Aspidoscelis tessellata* (Squamata: Teiidae). *The Southwestern Naturalist* 50(2): 258!262.
- Taylor, Harry L., James M. Walker, James E. Cordes, and Glenn J. Manning. 2005. Application of the Evolutionary Species Concept to Parthenogenetic Entities: Comparison of Postformational Divergence in Two Clones of *Aspidoscelis tessellata* and between *Aspidoscelis cozumela* and *Aspidoscelis maslini* (Squamata: Teiidae). *Journal of Herpetology* 39(2): 266!277.
- Walker, James M, Julio A. Lemos Espinal, Hobart M. Smith, Glenn J. Manning. 2005. *Aspidoscelis tigris aethiops* (Sonora-Sinaloa Desert Whiptail). Habitat, Body Size, and Reproduction. *Herpetological Review* 36(3): 316!317.
- Manning, Glenn J., Charles J. Cole, Herbert C. Dessauer, and James M. Walker. 2005. Hybridization Between Parthenogenetic *Aspidocelis neomexicana* and Gonochoristic *Aspidoscelis sexlineata viridis* in New Mexico: Ecological, Morphological, Cytological, and Molecular Context. *American Museum Novitates* 3492: 1-56.
- Manning, Glenn J. and James M. Walker. 2006. Hybridization Between Normally Parthenogenetic *Aspidoscelis tessellata* E and Gonochoristic *A. sexlineata viridis* (Squamata: Teiidae) at Ft. Sumner, De Baca Co., New Mexico. *American Midland Naturalist* 155:399-404.
- Manning, Glenn J. 2007. *Uta stansburiana* (Side-Blotched Lizard). Mortality. *Herpetological Review* 38(4): 465.
- Manning, Glenn J., James M. Walker, and Stephen R. Goldberg. 2009. *Aspidoscelis tessellata* (Checkered Whiptail) x *Aspidoscelis sexlineata viridis* (Prairie Racerunner). Reproductive Potential. *Herpetological Review* 40(3): 340.
- Taylor, Harry L., Charles J. Cole, Glenn J. Manning, James E. Cordes, and James M. Walker. 2012. Comparative Meristic Variability in Whiptail Lizards (Teiidae, *Aspidoscelis*): Samples of Parthenogenetic *A. tessellata* Versus Samples of Sexually Reproducing *A. sexlineata*, *A. marmorata*, and *A. gularis septemvittata*. *American Museum Novitates* 3744: 1-24.
- Walker, James M. Harry L. Taylor, Glenn J. Manning, James E. Cordes, Chad E. Montgomery, Lauren J. Livo, Steve Keefer and Charles Loeffler. 2012. Michelle's Lizard: Identity, Relationships, and Ecological Status of an Array of Parthenogenetic Lizards (Genus *Aspidoscelis*: Squamata: Teiidae) in Colorado, USA. *Herpetological Conservation and Biology* 7(2): 227-248.
- Walker, James M., James E. Cordes, Harry L. Taylor, and Glenn J. Manning. 2012. *Aspidoscelis tessellata* (Common Checkered Whiptail) Northern Life History. *Herpetological Review* 43(3) 479-480.
- Walker, James M., James E. Cordes, Stanley E. Truath, and Glenn J. Manning. 2013. *Aspidoscelis neomexicana* (New Mexico Whiptail) *Aspidoscelis sexlineata viridis* (Prairie Racerunner) Duration of Hybridization. *Herpetological Review* 44(3) 505-507.

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## **Awards**

- 2000 David Cuasy Grant in Aid, for promising research to a graduate student, Department of Biology University of Arkansas, Fayetteville.
- 2003 David Cuasy Grant in Aid, for promising research to a graduate student, Department of Biology University of Arkansas, Fayetteville.
- 2003 Biology Teaching Award University of Arkansas, Fayetteville.
- 2006 David Cuasy Prize, for outstanding or promising research, Department of Biology University of Arkansas, Fayetteville.
- 2009 Alpha Chi Rookie of the Year.
- 2009 Arkansas State Wildlife Grant. submitted by Dr. Todd M. Fearer (School of Forest Resources). Adapting a habitat model for timber rattlesnakes (*Crotalus horridus*) to assess the potential distribution of Western Diamondback Rattlesnakes (*C. atrox*) in Arkansas.

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## **Professional Service**

### **UAM Community**

- 2007-Present, Faculty Advisor Biology Club.
- 2007-Present, Faculty Advisor Medical Science Club.
- 2008, Search Committee for Professor of Biology.
- 2009, Search Committee for Professor of Chemistry.
- 2014, Search Committee for Instructor of Biology.
- 2015, Search Committee for Professor of Physics.
- 2009, Judge of Engineering: Materials and Bioenergy Southeastern Arkansas Regional Science Fair.
- 2010, Judge Southeastern Arkansas Regional Science Fair.
- 2010, Committee Member Student Evaluation Committee.
- 2012-2014-Present, Teacher Education Committee.
- 2012-Present, Committee Member Institutional Review Board.
- 2015, Committee Member, New Science Center Planning Committee.

### **Public**

- 2007, Snakes of Arkansas Educational Booth, Kidz Fair in Little Rock
- 2009, Snakes of Arkansas Educational Booth, Historic Arkansas Museum's Territorial Fair in Little Rock.
- 2010, Reptile show for the Night at the Museum Monticello Intermediate School.
- 2011, Reptile show for the Night at the Museum Monticello Intermediate School.
- 2012-2015 Biodiversity Fair Arkansas National Post.
- 2012 & 2014, Reptile show for Cub Scouts.

### **Profession**

- 2000-Present, Attended annual Missouri Herpetological Meeting.
- 2005-Present, Attended twice a year Arkansas Herpetological Society Meeting.
- 2011, Local Chair for Arkansas Academy of Science Meeting at UAM.

- 2011 & 2015, Midwest Partners for Reptile Conservation Meeting.
- 2011-Present, Advisory Board for the Ouachita Mountain Biological Station.
- 2012-Present, Joint Meeting of Ichthyologist and Herpetologist

# Lauren M. Morgan

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**Address:** School of Mathematical and Natural Sciences  
University of Arkansas at Monticello  
Monticello, AR 71656

**Phone:** (870) 460-1816

**Email:** [morganl@uamont.edu](mailto:morganl@uamont.edu)

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## Education:

2014 University of Arkansas at Monticello. B.S. Biology (Magna cum laude). Minor: Natural Science. GPA: 3.79

2009 Warren High School. Salutatorian. 3.83 GPA

## Teaching Experience:

### University of Arkansas at Monticello, Monticello, AR

2014- Current Instructor of Biology Labs

2013-2014 Lab Instructor (Undergraduate opportunity from Miller Sisters' Scholarship)

## Classes Taught:

### University of Arkansas at Monticello, Monticello, AR

Instructor of Biology Labs

2014-Current Microbiology Lab and Introduction to Biological Science Lab

Due to my reception of the Miller Sisters' Scholarship, I was able to instruct the following lab courses as an undergraduate at the University of Arkansas at Monticello:

2014 Microbiology Lab (Substitute position)

2013 Introduction to Biological Science Lab

## Work Experience:

### University of Arkansas at Monticello, Monticello, AR

2014-Current Instructor of Biology Labs

2013-Current Construction of an Anatomy and Physiology Dissection Manual and an Introduction to Biological Science Photo Atlas for publication and use by Ms. Jesse Chappell at UAM

2013-2014 Microbiology Lab Assistant

2012-2014 Anatomy and Physiology I Lab Assistant  
Anatomy and Physiology II Lab Assistant  
Introduction to Biological Science Lab Assistant

## Research Experience:

### University of Arkansas at Monticello, Monticello, AR

2015 Post-Baccalaureate Summer Research Internship with Dr. Karen Fawley and Dr. Marvin Fawley

## Honors:

2015 Alpha Chi Rookie of the Year Nominee

2013-2014 Miller Sisters' Scholarship, University of Arkansas at Monticello, Monticello, AR

2012 Albert L. Etheridge Scholarship, University of Arkansas at Monticello, Monticello, AR

2009 Salutatorian, Warren High School, Warren, AR

## Memberships:

2012-Current Alpha Chi National Honor Society

2012-2014 Sigma Zeta National Science and Mathematics Honor Society

2012-2014 UAM Biology Club

## References:

**Ms. Jesse Chappell**, School of Mathematical and Natural Sciences, 397 University Drive, University of Arkansas at Monticello, Monticello, AR 71656. 870-460-1566. [chappellj@uamont.edu](mailto:chappellj@uamont.edu)

**Dr. Karen Fawley**, School of Mathematical and Natural Sciences, 397 University Drive, University of Arkansas at Monticello, Monticello, AR 71656. 870-460-1165. [fawley@uamont.edu](mailto:fawley@uamont.edu)

**Dr. Mary Stewart**, School of Mathematical and Natural Sciences, 397 University Drive, University of Arkansas at Monticello, Monticello, AR 71656. 870-460-1767. [stewartm@uamont.edu](mailto:stewartm@uamont.edu)

# CURRICULUM VITAE

## **I. Name and Personal Information:**

### **Christopher G. Sims**

Associate Professor of Biology  
School of Mathematics and Natural Sciences  
The University of Arkansas at Monticello  
Monticello, AR 71656

TEL: (870) 460-0513 Home  
(870) 460-1664 Office  
(870) 460-1316 Fax  
E-MAIL: simsc@uamont.edu

Born November 10, 1971, Decatur, Alabama. Married (Monica). One child (James).

## **II. Post-secondary education history:**

B. S. The University of North Alabama, 1994  
Major: Professional Biology  
Minor: Chemistry

Ph.D. The University of Mississippi, 2002  
Major: Biology

## **III. Employment Experience:**

Associate Professor of Biology: The University of Arkansas at Monticello (Fall 2002-present)  
Instructor of Biology: The University of Mississippi (Fall 2000 and Spring 2002)  
Chemist: Intergraph Corporation, Huntsville, AL. (1994-95).

## **TEACHING EXPERIENCE:**

### **The University of Mississippi**

#### **Laboratory Instructor:**

BISC 103 and 105 Non-majors General Biology Laboratory (Fall 1995, Spring 1996, Fall 1996, Spring 1997)

BISC 161 Majors General Biology Laboratory (Summer 1997, Fall 1998, and Fall 1999)

BISC 330 Human Physiology Laboratory (Fall 1997, Spring 1999, and Spring 2001)

BISC 512 Behavioral Ecology (Fall 1995)

BISC 512 Animal Behavior Laboratory (Fall 1996, 1997, 1998, and 1999)

BISC 207 Human Anatomy and Physiology Laboratory (Spring 2000)

#### **Lecture Instructor:**

BISC 512 Animal Behavior Guest Lecturer (Fall 1999)

BISC 330 Human Physiology Guest Lecturer (Spring 1999 and Spring 2001)

BISC 102 Inquiry into Life/Human Biology (Fall 2000 and Spring 2002)

BISC 207 Human Anatomy and Physiology (Spring 2002)

### **The University of Arkansas at Monticello**

#### **Current or Past Instructor:**

BIOL 2223 Human Anatomy (Fall 2002, Spring 2003)

BIOL 2273 Human Physiology (Summer 2003)

BIOL 3801 Mammalian Anatomy Lab (Fall 2002)

BIOL 1063 Introduction to Biological Sciences (Spring 2003-present)

BIOL 4634 Vertebrate Physiology (Spring 2003-present)

BIOL 2233 and 2243 Human Anatomy and Physiology (Fall 2003-present)

BIOL 3574 Comparative Anatomy (Fall 2003)  
BIOL 1053 Principles of Biology (Fall 2005-2006)  
BIOL 4741 Seminar in Biology (Fall/Spring 2005-present)  
BIOL 4711 Teaching Biology (Spring 2005)  
BIOL 3524 Ornithology (Spring 2006-present)  
BIOL 475V Waterfowl Ecology (Spring 2011-present)

#### **IV. Dissertation:**

PHYSIOLOGICAL, ECOLOGICAL, AND BEHAVIORAL ASPECTS OF THE EARLY LIFE HISTORY OF THE NORTHERN MOCKINGBIRD (*Mimus polyglottos*)

#### **V. Professional Development:**

##### **PRESENTATIONS/POSTERS:**

(1996) "Corticosterone, Energetic Condition, Gonadal Development, and Weather During Migration". C. G. Sims and R. L. Holberton. 114th stated meeting of the American Ornithologists Union, Biose, Idaho.

(1998) "Age-related differences in the corticosterone stress response in the Northern Mockingbird". C. G. Sims and R. L. Holberton. North American Ornithological Congress, 116th stated meeting of the American Ornithologists Union, St. Louis, Missouri.

(1998) "Trans\_ dermal delivery of Exogenous Steroid Hormone in a Migratory Bird". W. B. Cash, C. G. Sims, L. Arcand\_Hoy, F. Tilton, and R. L. Holberton. The University of Southern Mississippi Graduate Student Symposium. Hattiesburg, Mississippi.

(1998) "Trans\_ dermal delivery of Exogenous Steroid Hormone in a Migratory Bird". W. B. Cash, C. G. Sims, L. Arcand\_Hoy, F. Tilton, and R. L. Holberton. 116th stated meeting of the American Ornithologists Union, St. Louis, Missouri.

(1999) "How do juveniles handle stress? A connection between endocrinology and juvenile independence". C. G. Sims. 117th stated meeting of the American Ornithologists Union, Cornell University, Ithaca, New York.

(1999) "An endocrine basis for migratory feeding and fattening: Is corticosterone necessary?" R. L. Holberton, W. B. Cash, C. G. Sims, and C. M. Wilson. 117th stated meeting of the American Ornithologists Union, Cornell University, Ithaca, New York.

(1999) "Physiological, ecological, and behavioral aspects of natal dispersal in the Northern Mockingbird, (*Mimus polyglottos*)". C. G. Sims. The University of Mississippi, Department of Biology Seminar Series.

(2000) "Development of the Corticosterone Stress Response in Young Northern Mockingbirds (*Mimus polyglottos*)". C. G. Sims. Mississippi State University, Department of Biology Seminar Series.

(2000) "Early life and corticosterone: a study of stress and independence in the Northern Mockingbird (*Mimus polyglottos*)". C. G. Sims. Animal Behavior Society Annual Meeting. Moorehouse College, Atlanta, Georgia.

- (2001) "The Role of Corticosterone and the Effects of its Inhibition During the Development of Migratory Condition in Dark-eyed Juncos". R. L. Holberton, C. M. Wilson, C. G. Sims, and W. B. Cash. Society for Integrative and Comparative Biology, Chicago, Illinois.
- (2002) "The influence of brood size on parental provisioning and the time to fledging in nestling Northern Mockingbirds". C. G. SIMS and R. L. HOLBERTON, The Third North American Ornithological Conference, New Orleans, Louisiana.
- (2006) "Sibling Competition and Parental Provisioning in Nestling Carolina Chickadees (*Poecile carolinensis*)". C. G. Sims and I. Nall, 67th meeting of the Association of Southeastern Biologists, Gatlinburg, Tennessee.
- (2009) "Sibling Competition and Parental Provisioning in Nestling Carolina Chickadees". C. G. Sims and J. L. Hunt, 127th stated meeting of the American Ornithologists Union, University of Pennsylvania, Philadelphia, PA.
- (2011) "A Test of the Migration Modulation Hypothesis in a Non-Passerine, Neotropical Migrant, the Blue-Winged Teal". C. M. Wilson, C. G. Sims, S. J. Schoech, and Z. L. Robinson. 129th stated meeting of the American Ornithologists Union, Jacksonville, FL.
- (2011) "Where are the Bugs? Invertebrate Forage for Migrating Shorebirds in Southeast Arkansas". J. Aycock and C. G. Sims. 129th stated meeting of the American Ornithologists Union, Jacksonville, FL.
- (2014) "New Host and Location Record for the Bat Bug *Cimex adjunctus* Barber 1939, with a Summary of Previous Records." M. E. Grillot, J. L. Hunt, C. G. Sims, and C. E. Comer. 24th Colloquium on Conservation of Mammals in the Southeastern United States, Lake Charles, Louisiana.
- (2014) "New Host and Location Record for the Bat Bug *Cimex adjunctus* Barber 1939, with a Summary of Previous Records." M. E. Grillot, J. L. Hunt, C. G. Sims, and C. E. Comer. Arkansas Academy of Sciences, Harding University, Searcy, Arkansas.
- (2015) "DDT and DDE Present in the Fur of Rafinesque's Big-eared Bats (*Corynorhinus rafinesquii*) and Hispid Cotton Rat (*Sigmodon hispidus*) in an Agricultural Region of Southeastern Arkansas." M. E. Grillot, J. L. Hunt, and C. G. Sims. Poster presented at the meeting of the Southwestern Association of Naturalists, San Diego State University, San Diego, California, April 2-5, 2015.
- (2015) "Shorebird Foraging Habitat in Southeast Arkansas". J. Aycock and C. G. Sims. Journal of the Arkansas Academy of Science. Arkansas Academy of Sciences, Henderson State University, Arkadelphia, Arkansas

#### **PUBLICATIONS:**

- (2000) "Development of of the Corticosterone Stress Response in Young Northern Mockingbirds (*Mimus polyglottos*).". C. G. Sims and R. L. Holberton. General and Comparative Endocrinology.
- (2005) "A net pole for the masses." C. G. Sims. North American Bird Bander.
- (2007) "The Role of Corticosterone in Migratory Lipogenesis of the Dark-eyed Junco, *Junco hyemalis*: A Model for Central and Peripheral Regulation." R. L. Holberton, C. Morgan Wilson,



M. J. Hunter, W. B. Cash, C. G. Sims. *Physiological and Biochemical Zoology*.

(2014) “New Host and Location Record for the Bat Bug *Cimex adjunctus* Barber 1939, with a Summary of Previous Records.” M. E. Grillot, J. L. Hunt, C. G. Sims, and C. E. Comer. *Journal of the Arkansas Academy of Science*.

### **PUBLICATIONS IN PREP:**

(in review) “A test of the migration modulation hypothesis in a non-passerine, neotropical migrant, the blue-winged teal”. C. G. Sims and C. M. Wilson.

(in review) “Shorebird Foraging Habitat in Southeast Arkansas”. J. Aycock and **C. G. Sims**. *Journal of the Arkansas Academy of Science*.

(to be resubmitted). Sibling competition and parental provisioning in nestling Carolina Chickadees. **C. G. Sims** and J. L. Hunt.

### **VI. Professional Recognition:**

#### **HONORS AND AWARDS:**

University of Mississippi summer research fellowship (Summer 1999 and 2000)

University of Mississippi dissertation fellowship (Fall 2001)

University of Arkansas at Monticello: Alpha Chi Rookie of the Year (2002-03 and 2003-04)

University of Arkansas at Monticello: Alpha Chi Teacher of the Year (2008)

Phi Kappa Phi Honors Society (1997- present)

#### **GRANTS:**

(2005) “Status and Distribution of Anhingas (*Anhinga anhinga*) in Arkansas”. J. L. Hunt and C. G. Sims. \$2150. UAM Faculty Research Grants.

(2007) “Sibling Competition and Parental Provisioning in Nestling Carolina Chickadees (*Poecile carolinensis*)”. C. G. Sims. \$2340. UAM Faculty Research Grants.

(2008, 2009, 2010, 2011, 2013) “Understanding the Migratory Patterns of the Blue-winged Teal (*Anas discors*)– A Test of the Migration Modulation Hypothesis in a Non-Passerine Neotropical Migrant”. C. G. Sims. \$2500. UAM Faculty Research Grants.

(2012) “Validation of Fecal Hormone Analysis Techniques for Bats” J. L. Hunt, C.G. Sims, and M.E. Grillot. \$1511. UAM Faculty Research Grants.

(2013) “Monitoring Rafinesque’s big-eared bats for toxin exposure”. J. L. Hunt, C.G. Sims, and M.E. Grillot. \$1400. UAM Faculty Research Grants.

## **VII. Service:**

### **PROFESSIONAL:**

University of Arkansas at Monticello Graduate Council (2003-2005)  
Mathematics and Natural Sciences Tenure and Promotions Committee (2003)  
Committee to evaluate and change the Human Anatomy and Physiology curriculum (2002-2003)  
Physiologist Search Committee Chair (2003-2004)  
Faculty Research Committee Chair (2005-2007)  
Silo/Surf Undergraduate Research Committee (Arkansas Department of Higher Education) (Fall 2005 and 2007)  
UAM Institutional Animal Care Committee (2004-present)  
Athletic Committee Chair (2009-present)  
Basketball Head Coach Search Committee (2010 and 2014)  
Football Head Coach Search Committee (2011)  
Faculty sponsor: UAM Biology Club (2002-present)  
Faculty sponsor: UAM Medical Sciences Club (2002-present)  
Faculty sponsor: UAM Ducks Unlimited Chapter (2006-present)  
Faculty sponsor: UAM Weevil Claybusters shotgun team (2014)

### **COMMUNITY:**

Presentation of birds and bird life to Oxford Public Library summer reading program participants.  
Judge, Bramlett Elementary Science Fair 2000  
Judge, University of Mississippi, Ken Wooten Scholars Bowl 2001 & 2002  
Judge, Drew Central Jr. and Sr. High Science Fair 2003  
Judge, Regional Science Fair, University of Arkansas at Monticello (Spring 2003-present)  
Drew County Ducks Unlimited Local Committee (2005-present)  
Adult continuing education (Shepherd program) birding class (Spring 2008)  
Founding member of the SEARK cyclists bicycle club (2013)  
Range officer for the Arkansas National Archery in Schools Regional Tournament (2013)  
Developed the "Robert H. Burch Endowment for Waterfowl Research" at the University of Arkansas at Monticello (2015)

### **MANUSCRIPT REVIEWER:**

American Midland Naturalist  
The Wilson Bulletin  
General and Comparative Endocrinology  
Northeastern Naturalist  
Herpetologica (2013)

### **Graduate Committies:**

Andrea Long. 2009-2011. American Woodcock spring migration chronology, use of early successional pine stands, and distribution in Arkansas. School of Forest Resources, University of Arkansas at Monticello.

Jean Aycock. 2010-2012. Shorebird use of stopover habitat on private, state, and federal lands in Southeast Arkansas. School of Forest Resources, University of Arkansas at Monticello. Major Advisor

Jerad Henson. 2012-present. Impacts of hunting and life-history stages on the stress physiology of wintering Mallards (*Anas platyrhynchos*). Department of Biology. University of Memphis. Co-advisor.

Cassandra Montoya. 2013. Achieving desired forest conditions in a bottomland hardwood forest: a monitoring approach to informing management decision. School of Forest Resources, University of Arkansas at Monticello. Student withdrawn.

## **VIII. Other Relevant Information:**

### **PROFESSIONAL SOCIETIES:**

American Ornithologists Union (1995- present)  
Animal Behaviour Society (1996- 2004)  
Association of Field Ornithologists (2002)  
Association of Southeastern Biologists (2004-2006)  
BETA BETA BETA Biological Honors Society (1993-94)  
Cooper Ornithological Society (1995- 2008)  
Wilson Ornithological Society (2002)

### **RESEARCH INTERESTS:**

Ecological, behavioral, and physiological aspects of natal dispersal and fledging behavior in birds.

Waterfowl migration and winter ecology.

### **RESEARCH EXPERIENCE:**

#### **Field:**

Energetics and endocrinology of Neotropical bird migration on the Gulf of Mexico in Fall and Spring. (1995-96)  
Early life history and endocrinology of Northern Mockingbirds (*Mimus polyglottos*). (1997-2004)  
Early life history and endocrinology of Carolina Chickadees (*Poecile carolinensis*). (2005-present)

#### **Lab:**

Capture, handling, and care of wild birds in captivity. (1995- present)  
Blood collection from birds. (1995- present)  
Radioimmunoassay to measure plasma hormone levels. (1996- present)  
Research assistant identifying and studying the role of bacteria in chicken compost. (1993-94)

### **ADDITIONAL PROFESSIONAL AND SCHOLORLY ACTIVITIES:**

Adjunct graduate faculty at the University of Memphis

It should be noted that I have served not only on graduate committees, but have acted as the major advisor for one master's thesis for a student in the College of Forest Resources and currently I am serving as the co-advisor for a student at the University of Memphis. To my knowledge, I am the only person to have served as a graduate committee chair from Mathematics and Natural Sciences.

## *Curriculum vitae*

### **Mary J. Stewart**

#### **Professional preparation**

B.S.	Biology	Kearney State College (Univ. of NE at Kearney), 1986
Ph.D.	Biology	Kansas State University, 1992
Postdoctoral	Growth Control	Friedrich Miescher Institute, Basal Switzerland, 1992-1997

#### **Appointments**

2011-present	Associate Professor of Biology	Univ. of Arkansas at Monticello
2008-2011	Assistant Professor of Biology	Univ. of Arkansas at Monticello
2005-2008	Adjunct Instructor in Biology	Minnesota State Community and Technical College, Moorhead, MN
2001-2002	Director, Cell and Molecular Biol. Graduate Program	North Dakota State Univ., Fargo, ND
1997-2006	Assistant Professor of Biol. Sci.	North Dakota State Univ., Fargo, ND

#### **Classes Taught Since Joining UAM**

Microbiology, three credit hours (BIOL 3553): Taught for 14 academic semesters and 4 summer sessions.

Microbiology Lab, one credit hour (BIOL 3561): Taught for 12 academic semesters and 4 summer sessions.

Cell Biology, three credit hours (BIOL 3363): Taught for seven academic semesters.

Genetics with lab, four credits (BIOL 3354): Taught for seven academic semesters.

Senior Research, one credit hour (BIOL 498V): Taught for eight academic semesters.

Senior Seminar, one credit hour (BIOL 4741): Taught in Spring 2013.

Special Topics, Developmental Biology, three credits (BIOL 475V): Taught in Spring 2011.

Molecular Biology, three credits (BIOL 3334): Taught in Spring 2015. This course will be offered every spring semester of odd-numbered years.

Molecular Biology lab, one credit, (BIOL 3331): Taught in Spring 2015. This course will be offered every spring semester of odd-numbered years.

## **Planned Classes to Teach at UAM**

In Spring 2016, I plan to teach Immunology, a three-credit hour undergraduate course that has not been offered previously at UAM. I expect to teach this course every spring semester of even-numbered years.

## **Updates and equipment additions to laboratories taught at UAM**

2009-2014: I made changes to the genetics lab that I teach (BIOL 3354) to include more molecular genetics lab work such as plasmid cloning, genomic DNA isolation, DNA fingerprinting, PCR, and DNA sequencing.

2013: With funds from the Dean of Mathematical and Natural Sciences, I purchased several sets of micropipettes for use in the molecular genetics portion of genetics lab (BIOL 3354).

2014: Added an additional section of genetics laboratory (BIOL 3354) to accommodate the increased demand for the course.

2015: With funds from a UAM Faculty Research grant and from the Dean of Mathematical and Natural Sciences, I purchased a vertical SDS-PAGE and blotting unit to allow students to perform gel electrophoresis of proteins and Western blotting for protein analysis.

2015: With funds from the Dean of Dean of Mathematical and Natural Sciences, I purchased the equipment listed below to allow students in genetics laboratory to work more efficiently and to relieve bottlenecks caused by waits to access equipment:

- Additional sets of micropipettes. This will allow each student in the laboratory to have their own set of micropipettes to use.
- Four horizontal gel electrophoresis units. This brings our total number of electrophoresis units to eight and will eliminate the need for students to wait long in line to load their samples on a gel.
- Two additional microcentrifuges. This brings our total number of microcentrifuges to four and will eliminate the need for students to wait in line to centrifuge their samples.

## **Students Mentored in Undergraduate Research Since I Joined UAM**

Seth St. John, research student from 2014 – present. Expected graduation is May 2016. After graduating from UAM, Seth plans to attend pharmacy school. *A research poster presented by Seth St. John and Devon Wray at the 2015 joint meeting of the AR Academy of Science and Arkansas Undergraduate Research Conference won the “best poster overall” for the meeting.*

Devon Wray, research student from 2014 – present. Expected graduation is May 2016. After graduating from UAM, Devon plans to attend graduate school. *A research poster presented by Seth St. John and Devon Wray at the 2015 joint meeting of the AR Academy of Science and Arkansas Undergraduate Research Conference won the “best poster overall” for the meeting.*

Shana Chancellor, research student from 2012 to 2014. Graduated from UAM in 2014. Currently enrolled in graduate school in microbiology and immunology at the University of Arkansas for Medical Sciences in Little Rock, Arkansas.

Hope Dunlap, research student from 2012 to 2014. Graduated from UAM in 2014. Currently attending veterinary school at Louisiana State University in Baton Rouge, Louisiana.

Sammi Warren, research student in 2012. Graduated in 2014.

Robert Rose, research student from 2010 to 2012. Graduated from UAM in 2012. Currently in medical school at the University of Arkansas for Medical Sciences at the University of Arkansas for Medical Sciences in Little Rock, Arkansas.

### **Honors, Awards, Patents**

2013: Named “Outstanding Academic Advisor” by the Dean of Mathematics and Natural Sciences at the Univ. of Arkansas at Monticello.

2010: Voted Faculty Rookie of the Year by the students of the Alpha Chi Academic Honor Society at the Univ. of Arkansas at Monticello.

2009: Was a finalist for Faculty Rookie of the Year as voted by students of the Alpha Chi Academic Honor Society at the Univ. of Arkansas at Monticello.

1998: Stewart, M., Kozma, S., Thomas, G. *Drosophila melanogaster* p70 S6 kinase. World Patent 1998.1.29 9803662-A.

1989: H.H. Haymaker Award for Excellence in Graduate Research, Kansas State University, Manhattan, KS

### **Publications**

**Stewart, M.J.** and Hunt, J.L. (2012). Effects of *Drosophila* Ribosomal Protein S6 Kinase on Wing Growth. AR Acad. of Sci. 66:141-149.

Lin, J.I., Mitchell, N.C., Kalcina, M., Tchoubrieva, E., **Stewart, M.J.**, Marygold, S.J., Walker, C.D., Thomas, G., Leervers, S.J., Pearson, R.B., Quinn, L.M., Hannan, R.D. (2011). *Drosophila* ribosomal protein mutants control tissue growth non-autonomously via effects on the prothoracic gland and ecdysone. PLoS Genet., 7(12):e1002408.

**Stewart, M.J.** and Nordquist, E.N. (2005). *Drosophila* Bys is nuclear and shows dynamic tissue-specific expression during development. Dev. Genes Evol., 215: 97-102.

**Stewart, M.J.** (2004) Exploring Cells. Cell Biol. Educ., 3:228-229.

Barcelo, H. and **Stewart, M.J.** (2002). Altering *Drosophila* S6 kinase activity is consistent with a role for S6 kinase in growth. Genesis, 33:83-85.

Volarevic, S., **Stewart, M.J.**, Ledermann, B., Zilberman, F., Terracciano, L., Montini, E., Grompe, M.,

Kozma, S.C. and Thomas, G. (2000). Proliferation, but not growth, blocked by conditional deletion of 40S ribosomal protein S6. *Science*, 288: 2045-2047.

\*Montagne, J., **Stewart, M.J.**, Stocker, H., Hafen, E., Kozma, S.C., and Thomas, G. (1999). *Drosophila* S6 kinase: a regulator of cell size. *Science*, 283:2126-2129. \**M.J. Stewart and J. Montagne contributed equally to this study.*

**Stewart, M.J.**, Berry, C.O.A., Zilberman, F., Thomas, G., and Kozma, S.C. (1996). The *Drosophila* p70<sup>s6k</sup> homolog displays conserved regulatory motifs and rapamycin sensitivity. *Proc. Natl. Acad. Sci., U.S.A.* 93:10791-10796.

**Stewart, M.J.** and Thomas, G. (1994). Mitogenesis and protein synthesis: a role for ribosomal protein S6? *BioEssays* 16:809-815.

**Stewart, M.J.** and Denell, R. (1993). Mutations in the *Drosophila* homolog of ribosomal protein S6 cause tissue overgrowth. *Mol. Cell. Biol.* 13:2524-2535.

**Stewart, M.J.** and Denell, R. (1993). The *Drosophila* ribosomal protein S6 gene includes a 3' triplication which arose by unequal crossing over. *J. Mol. Biol. Evol.* 10:1041-1047.

Maki, C., Rhoads, D.D., **Stewart, M.J.**, Van Slyke, B., and Roufa, D.J. (1989). The *Drosophila melanogaster* RpS17 gene encoding ribosomal protein S17. *Gene* 79:289-298.

Brown, S.J., Rhoads, D.D., **Stewart, M.J.**, Van Slyke, B., Chen, I.-T., Johnson, T.K., Denell, R.E., and Roufa, D.J. (1988). Ribosomal protein S14 is encoded by a pair of highly conserved adjacent genes on the X chromosome of *Drosophila melanogaster*. *Mol. Cell. Biol.* 8:4314-4321.

### **Oral Presentations Since Joining UAM**

**Stewart, M.J.** (2013). Function of a Ribosomal Protein Gene in Growth and Tumors. Oral presentation at the 2013 Arkansas INBRE Research Meeting in Little Rock, Arkansas.

**Stewart, M.J.** (2012). Tumor Suppressor Genes: *Drosophila melanogaster* as a Model for Human Disease. Oral presentation at the 2012 Arkansas INBRE Research Meeting in Little Rock, Arkansas.

**Stewart, M.J.** and Hunt, J.L. (2012). Effects of *Drosophila* Ribosomal Protein S6 Kinase on Wing Growth. Oral presentation at the 2012 Arkansas Academy of Science Meeting in Magnolia, Arkansas.

**Abstracts and Poster Presentations Since Joining UAM.** (The names of UAM undergraduate student researchers are underlined)

Seth St. John, Devon Wray and Mary Stewart (2015). Analysis of a Ribosomal Protein Gene in Tumor Development. Poster presentation at the April 2015 Joint Meeting of the Arkansas Academy of Science and the Arkansas Undergraduate Research Conference in Arkadelphia, Arkansas. ***This poster won the "Best Overall Poster Award" for this meeting.***

- Shana Chancellor, Hope Dunlap, Robert Rose, Helen Beneš and Mary Stewart (2014). Genetic analysis of *RpS6-Or\_aca2* gene function. Poster presentation at the April 2014 Arkansas Space Grant Consortium meeting in Hot Springs, Arkansas.
- Shana Chancellor, Hope Dunlap, Robert Rose, Helen Beneš and Mary Stewart (2013). Genetic analysis of *RpS6-Or\_aca2* gene function. Poster presentation at the November 2013 Southeast Regional IDEa meeting in Little Rock, AR.
- Shana Chancellor, Hope Dunlap, Robert Rose, Helen Beneš and Mary Stewart (2013). Genetic analysis of *RpS6-Or\_aca2* gene function. Poster presentation at the October 2013 Arkansas INBRE meeting in Fayetteville, Arkansas.
- Mary Stewart, Shana Chancellor, Hope Dunlap and Helen Beneš (2013). Expression of the *Drosophila melanogaster RpS6-Or\_aca2* Gene. Poster presentation at the October 2013 Arkansas INBRE meeting in Fayetteville, Arkansas.
- Shana Chancellor, Hope Dunlap, Helen Beneš and Mary Stewart (2013). Function of a Dual Gene in Growth and Tumors. Poster presentation at the February 2013 STEM meeting at the Arkansas State Capital in Little Rock, Arkansas.
- Shana Chancellor, Hope Dunlap, Robert Rose, Helen Beneš and Mary Stewart (2013). Function of a “Dual Gene” in Growth and Tumors. Poster presentation at the April 5-6, 2013 Arkansas Academy of Science meeting in Little Rock, Arkansas.
- Warren, S., Dunlap, H., Chancellor, S., and Stewart, M.J. (2012). A Transgenic Approach to Discern the Role of a Small Non-Coding RNA. Poster presentation at the 2012 AR INBRE meeting in Fayetteville, Arkansas.
- Stewart, M.J. and Rose, R. (2012). Ribosomal Protein S6 in Growth and Tumor Development. Poster presentation at the 2012 AR INBRE meeting in Fayetteville, Arkansas.
- Rose, R. and Stewart, M.J. (2012). Investigation of Two Genes in Growth and Tumor Development. Poster presentation at the 2012 STEM meeting at the Arkansas state capital in Little Rock, AR.
- Stewart, M.J. and Hunt, J.L. (2011). Effects of *Drosophila* p70S6 Kinase Variants on Cell Size. Poster presentation at the 2011 Arkansas Academy of Science meeting in Monticello, Arkansas.
- Rose, R. and Stewart, M.J. (2011). Functional Analysis of the *RpS6* gene and a nested snoRNA in Growth and Tumor Suppression. Poster presentation at the 2011 Arkansas Academy of Science meeting in Monticello, Arkansas.
- Rose, R. and Stewart, M.J. (2011). Functional Analysis of the *RpS6* gene and a nested snoRNA in Growth and Tumor Suppression. Poster presentation at the 2011 Arkansas INBRE meeting in Fayetteville, Arkansas.
- Stewart, M.J. and Hunt, J.L. (2010). Altered forms of *Drosophila* S6 kinase impact cell size. Poster presentation at the 2010 Arkansas INBRE meeting in Fayetteville, Arkansas.
- Rose, R. and Stewart, M.J. (2010). Investigation of two genes in growth and tumor suppression. Poster presentation at the 2010 Arkansas INBRE meeting in Fayetteville, Arkansas.

### **Grants Funded Since Joining UAM**

2014: UAM faculty research grant for \$1500.00



2013: UAM faculty research grant for \$1500.00

2013: Faculty sponsor for a \$2600.00 SURF grant awarded to Shana Chancellor (UAM undergraduate student) by the Arkansas Department of Higher Education.

2013: Faculty sponsor for a \$1500.00 STEM grant awarded to Shana Chancellor (UAM undergraduate student) by the Arkansas Space Grant Consortium.

2013: Arkansas INBRE summer research grant for \$20,252.00.

2012: Arkansas INBRE summer research grant for \$8785.59.

2012: UAM faculty research grant for \$1500.00.

2010: UAM faculty research grant for \$1500.00.

2010: Faculty sponsor for a \$2600.00 SURF grant awarded to Robert Rose (UAM undergraduate student) by the Arkansas Department of Higher Education.

2009: UAM faculty research grant for \$1500.00.

### **Grants Submitted, but Not Funded, Since Joining UAM**

NSF (National Science Foundation) grant application in 2009 for \$66,646.00. This proposal was in collaboration with Drs. Marvin and Karen Fawley at UAM. Grant title: Acquisition of instrumentation to enhance research in cell biology and biodiversity

NSF grant application in 2010 for 130,200.00. The proposal was in collaboration with Drs. Marvin and Karen Fawley at UAM. Grant title: MRI acquisition of microscopy equipment to enhance research in cell biology and biodiversity

### **Other Current Research Activities**

An ongoing collaboration with Dr. Leonie Quinn at the University of Melbourne (Melbourne, Australia) and Drs. Rick Pearson and Ross Hannan and at the Peter MacCallum Cancer Research Institute in Melbourne Australia has yielded a 2011 publication in the journal PLoS Genetics.

In the summer of 2012, I began a collaboration with Dr. Helen Beneš at UAMS in Little Rock, Arkansas. Dr. Beneš served as my faculty mentor for two different Arkansas INBRE summer research grants; one for summer of 2012 and another for summer of 2013.

### **Advising**

Serve as academic advisor to a variety of UAM students including Allied Health majors, Pre-pharmacy majors and Biology majors.

In 2013, was named “Outstanding Academic Advisor” by the Dean of Mathematics and Natural Sciences at UAM (Univ. of Arkansas at Monticello).

## **University Service and Committees**

Member of the UAM Faculty Research Grant Committee, Spring 2015 - present.

Member of the UAM Teacher Education Committee, 2014 to present.

Member of the UAM Library Committee, 2010 – 2014.

Member of the Biology Curriculum Committee, an *ad hoc* committee to review the biology curriculum at UAM, 2011 to present.

Member of the UAM cost containment committee, 2011 – 2012.

## **Professional Service**

Facilitated a one-day, K-12 science teacher professional development workshop called “Biotech in a Box” on June 5, 2013.

In 2012, served as an “expert interviewee” for 8<sup>th</sup> grade Star City science students by answering their interview questions via email

Attended a week long Advanced Placement Biology Summer Institute held in Hot Springs, Arkansas in July 2011.

In 2011, became an “advanced placement biology liaison” for regional K-12 schools.

In 2011 and 2010, volunteered at College Goal Sunday, a one-day event to help students apply for financial aid to attend college.

Served as a poster and/or oral presentation judge for numerous scientific meetings:

2014: Poster judge at the Southeast Arkansas Science Fair at UAM in Monticello, Arkansas.

2013: Poster judge at the Arkansas INBRE meeting in Fayetteville, Arkansas.

2013: Poster judge at the Southeast Arkansas Science Fair at UAM in Monticello, Arkansas.

2012: Poster judge at the Southeast Arkansas Science Fair at UAM in Monticello, Arkansas.

2011: Oral presentation judge at the Arkansas Academy of Science Conference in Monticello, Arkansas.

2011: Poster judge at the Southeast Arkansas Science Fair at UAM in Monticello, Arkansas.

2010: Poster judge at the 2010 Arkansas Academy of Science meeting in Little Rock, Arkansas.

2010: Poster judge at the Southeast Arkansas Science Fair at UAM in Monticello, Arkansas.

2009: Poster judge at the Southeast Arkansas Science Fair at UAM in Monticello, Arkansas.

## **Professional Memberships**

Member of UAM chapter of Sigma Zeta.

Member of the Arkansas Academy of Sciences.

Past member of the American Society for Microbiology.

Past member of the Genetics Society of America.

Past member of the American Association of Sciences.

CurriculumVita for  
**Joseph Morris Bramlett**

**Interests:** Science Education, Inorganic Chemistry, Organic Chemistry, Organometallic Chemistry

**Education:**

*University of Arkansas - Fayetteville*, 1985-1993, Ph.D. (Organometallic Chemistry)

Dissertation: Synthesis and Chemistry of  $\eta^1$ -Butadienyl and  $\eta^1$ -Pentadienyl Transition Metal Complexes.

*Arkansas Tech University*, 1981-1985, B.S. (Chemistry)

**Employment at Institutions of Higher Education:**

*University of Arkansas-Monticello*, 1991-1992, 1993-present

2007-present, Dean of Mathematical and Natural Sciences

2006-2007, Assistant Dean for the Sciences

2005-present, Professor of Chemistry

1998-2005, Associate Professor of Chemistry

1993-1997, Assistant Professor of Chemistry

1991-1992, Instructor of Chemistry

**Courses Taught:** Introduction to Chemistry, Introduction to Organic and Biochemistry, General Chemistry, Organic Chemistry, Organic Analysis, Advanced Lab, Advanced Inorganic Chemistry, Elements of Physics, Introduction to Physical Science, Astronomy Lab, Higher Order Thinking in Science (a graduate education course in conjunction with the Arkansas Science Crusade)

**Non-Teaching Positions and Committees at UAM:** Chair of the Pre-professional Advisory Committee, Pre-pharmacy advisor, Chemistry advisor, Arkansas Space Grant (NASA) Campus Coordinator, Chemical Waste Officer, Undergraduate Research Mentor, NCAA Faculty Athletics Representative, NCAA Compliance Coordinator, Marketing Committee, Student Evaluation Committee, Faculty Handbook Revision Committee, Assessment Committee, Faculty Advisor for the Student Government Association, Regional Science Fair Judge, Athletic Committee

*Berea College*, 2001, RSEC Fellow and Visiting Faculty in Chemistry (during UAM sabbatical)

Courses Taught: General Chemistry I and lab, General Chemistry II and lab

Non-Teaching Responsibilities: RSEC Research Program

*University of Tennessee*, 2000, RSEC Fellow and Visiting Faculty in Chemistry (during UAM sabbatical)

Courses Taught: Organic Chemistry II

Non-Teaching Responsibilities: RSEC Research Program

*Arkansas State University-Beebe*, 1992-1993, Instructor of Physical Science and Chemistry

Courses Taught: Physical Science with lab, General Chemistry I and II with lab

**Service and Professional Recognition**

## **Positions:**

Board Member, Arkansas Dean's Association, 2015-present

Board of Directors, Arkansas STEM Coalition, 2013-present

Consultant/Trainer, Arkansas Advanced Initiative for Math and Sciences (AAIMS), 2010-present

## **Honors and Awards:**

Alpha Chi Administrator of the Year, 2008 and 2010, University of Arkansas at Monticello

UAM Faculty Excellence Gold Award Winner, 2002 & 1997 (Outstanding UAM Faculty Member selected by peers)

Chairman, Ouachita Valley Section of the American Chemical Society, 1998

A.W. Cordes Teaching Award, 1985 & 1989 Outstanding graduate teaching assistant, Department of Chemistry and Biochemistry, University of Arkansas-Fayetteville

## **Professional Organizations:**

American Chemical Society

Arkansas Academy of Science

## **Professional Publications:**

Im, Hee-Jung; Yost, Terry; Yang, Yihui; **Bramlett, J. Morris**, Yu, Xiangua; Fagan, Bryan, Barnes, Craig E; Dai, Sheng; "Organofunctional sol-gel materials for toxic metal separation," ACS Symposium Series (2006) 943 (Nuclear Waste Management), 223-237.

**J. Morris Bramlett**, Hee-Jung Im, Xiang-Hua Yu, Tanniu Chen, Hu Cai, Lee E. Roecker, Craig E. Barnes, Sheng, Dai, Zi-Ling Xue; "Reactions of Thioether Carboxylic Acids with Mercury (II). Formation and X-ray Crystal Structure of Mercury (II) mercaptoacetate", *Inorganica Chimica Acta*, 357 (2004) 243-249.

Im, Hee-jung; Yost, Terry L; Yang, Yihui; **Bramlett, J. Morris**; Yu, Xiang-Hua; Barnes, Craig E; Dai, Sheng; "Organofunctional sol-gel materials for toxic metal separation," Abstracts of Papers, 226<sup>th</sup> ACS National Meeting, New York, NY, Sept 2003, NUCL-091

Phillips, Bradley J; McConnell, Rose; **Bramlett, Joseph M**; Godwin, Walter; "Polyfuran: Molecular modeling and synthetic studies," Book of Abstracts, 211<sup>th</sup> ACS National Meeting, New Orleans, LA, March 1996, CHED-564

Stanley, Brant K; McConnell, Rose; **Bramlett, J. Morris**; Godwin, Walter; "The effect of deuterium solutions on pH," Book of Abstracts, 211<sup>th</sup> ACS National Meeting, New Orleans, LA, March 1996, CHED-254

D.P. Dawson; W. Yongsukulrote; **J.M. Bramlett**; J.B. Wright; B. Durham; N.T. Allison; "Photolysis of CpFe(CO)<sub>2</sub>Butadienyl Complexes. Synthesis and Electrocyclic Ring Closure of CpFe-Pentadienyl Complexes to Hydroxyferrocenes", *Organometallics*, 1994, 13(10), 3873-3880.

W. Yongsukulrote; **J.M. Bramlett**; C.A. Mike; B. Durham; N.T. Allison; "Photochemical Conversion of  $\eta^1$ -Butadienyl Iron Complexes to Hydroxyferrocenes", *Organometallics*, 1989, 8(2), 556-558.

### **Grants (external):**

National Science Foundation, \$3.5 M total for 9 campuses, **Dr. J. Morris Bramlett** UAM Writer and Coordinator, Arkansas-Louis Stokes Alliance for Minority Participation in Math, Science, Engineering, and Technology, 2008-2013.

NASA-Arkansas Space Grant Consortium, \$23,400, **Dr. J. Morris Bramlett** and Mr. Joe M. Guenter, Equipment Grant for Upgrading the UAM Planetarium, 2008.

NASA-Arkansas Space Grant Consortium, \$4000, **Dr. J. Morris Bramlett**, for continuation of the project, "Removal of Transition Metals from Aqueous Systems using Silica Bound Ligands" 2005-06

NASA-Arkansas Space Grant Consortium, \$4000, **Dr. J. Morris Bramlett**, for the project, "Removal of Transition Metals from Aqueous Systems using Silica Bound Ligands," 2004-05

NASA-Arkansas Space Grant Consortium, \$5000, Dr. Rose McConnell, **Dr. J. Morris Bramlett**, for the project, "DVD/Video Tape Library and Hands-on Laboratory Experiences in Science and Calculus Concepts," 2003-04

NASA-Arkansas Space Grant Consortium, \$3500, **Dr. J. Morris Bramlett**, for undergraduate research project "Transition Metal Complexes with Sulfur Containing Ligands," 2003-04

NASA-Arkansas Space Grant Consortium, \$4000, **Dr. J. Morris Bramlett**, for the undergraduate research project "Removal of Heavy Metals from Aqueous Systems using Sulfur Containing Ligands," 2002-03

Research Sites for Educators in Chemistry-National Science Foundation Grant: \$38,500, **Dr. Joseph M. Bramlett**, for research conducted while on off-campus duty assignment during the 2000-01 academic year at the University of Tennessee and Berea College. A \$5000 continuation grant was provided upon return to UAM.

Arkansas Math and Science Crusades: School/College Collaboration Project, \$32,550 for fiscal year 1997 from Arkansas Department of Higher Education to **Dr. J. Morris Bramlett** and Mr. Lowell Lynde, project directors, University of Arkansas - Monticello.

Arkansas Science Crusade: Higher Order Thinking in Science, \$21,196 for fiscal year 1996 from the Arkansas Systemic Initiative National Science Foundation Program to **Dr. J. Morris Bramlett**, project director, University of Arkansas - Monticello.

Arkansas Science Crusade: Higher Order Thinking in Science, \$46,626 for fiscal year 1995 from the Arkansas Systemic Initiative National Science Foundation Program to **Dr. J. Morris Bramlett**, and Dr. James Edson, project directors, University of Arkansas - Monticello.

### **Undergraduate Research Projects:**

Adair Claycomb, "Biofuel Production from Wood Waste, and Analysis of Byproducts,"

Lindsay Rymes and Misti Temple, "*Saline River Water Quality Survey*" (co-directed with Dr. Ed Bacon, internally funded by UAM Research Grant)

Jerri Webb, "*Molecular Modeling of Heavy Metal Disulfides*," 2005. (externally funded by NASA/ASGC)

Michael E. McMillan, "*Synthesis of Sulfur Containing Ligands for forming Heavy Metal Complexes*," 2004-2005. (externally funded by NASA/ASGC)

Ethan Trana, "*Transition Metal Complexes with Sulfur Containing Ligands*," 2003-2004. (externally funded by

NASA/ASGC)

Max E. Hetzer, “*Heavy Metal Complexes with Dithioacetals*,” 2001-2002. (externally funded by NASA/ASGC)

Joe Sundell (Arkansas High School for Mathematics and Sciences), “Comparison of Experimental and Theoretical Van’t Hoff Factors in Aqueous Ionic Compounds,” 1999-2000.

Christopher Holiman, “Improvement of Classic Physics and Chemistry Experiments through use of TI Graphing Calculators and TI-CBL Devices,” 1999.

Diana K. Gray, Honors Program Research Option, “A Comparison of Simple Alkanes Using Molecular Modeling,” 1997.

### **Presentations at Professional Meetings:**

**Trana, Ethan;** Bramlett, Joseph Morris; “*Transition Metal Complexes with Sulfur Containing Ligands.*,” NASA/Arkansas Space Grant Consortium Symposium, April 2004, Batesville, AR.

**Bramlett, Joseph Morris;** “*Using Software to Enhance Chemistry Teaching*” Biomedical Research Infrastructure Network (BRIN) Symposium, Sept. 2003, Fayetteville, AR Presentation:

**Xue, Zi-Ling,** Im, Hee-Jung, Yost; Yost, Terry L; Bramlett, Joseph Morris; Yu, Xianghua; Fagan, Bryan C; Allain, Leonardo; Chen, Tianniu; Barnes, Craig E; Dai, Sheng; Roecker, Lee E; Sepaniak, Michael J; “*Oranofunctional Sol-Gel Materials for Toxic Metal Separation.*” Environmental Management Science Program (EMSP) National Meeting of the American Chemical Society, September 2003, New York, NY.

**Hetzer, Max E.;** Bramlett, Joseph Morris; “*Heavy Metal Complexes with Dithioacetals.*” NASA/Arkansas Space Grant Consortium Symposium, April 2002, Jonesboro, AR.

**J. Morris Bramlett,** *Using the TI-83 and the TI-Calculator Based Laboratory in Mathematics and Science Education.* Southwest Arkansas Science Teachers Alliance, Camp Clearfork (Hot Springs), AR, 1998.

**Stanley, Brant;** McConnell, Rose M.; Bramlett, J. Morris; Godwin, Walter, “The Effect of Deuterium Solutions on pH.” The 211<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, 1996, CHED PS 254.

**Phillips, Bradley;** McConnell, Rose M.; Bramlett, J. Morris; Godwin, Walter, “Polyfuran: Molecular Modeling and New Synthetic Studies.” The 211<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, CHED PS 564.

**Bramlett, J.M.;** **Sylvester, M.** “Black Boxes, Owl Pellets, and CBL’s” Southeastern Arkansas Science Teacher’s Alliance, Monticello, AR, Nov. 15, 1995.

**Phillips, Bradley;** McConnell, Rose M.; Bramlett, J. Morris; Godwin, Walter, “Polyfuran: Molecular Modeling & Synthetic Studies.” Chemical Education Conference, Fayetteville, AR, 1995, Poster 12.

**Bramlett, J.M.;** Huddle, J. “Using Computers to Help Teachers: An Introduction to Science CAPS.” Arkansas Science Crusade Training Meetings, Searcy, AR April 1995.

**Bramlett, J. M.;** Allison, N.T., “Synthesis and Chemistry of  $\eta^1$ -Butadienyl Iron Complexes.” Ouachita Valley Section of the American Chemical Society, Monticello, AR Sept. 1991.

**Bramlett, J.M.;** Durham, B.; Allison, N.T., "Photochemical Reactions of Transition Metal Butadiene Complexes." 197<sup>th</sup> National Meeting of the American Chemical Society, Dallas, TX, April 1989, INOR 161.

**Bramlett, J.M.;** Allison, N.T.; Durham, B., "Formation of Hydroxyferrocenes via Photochemical Methods." 43<sup>rd</sup> Meeting of the Southwest Region of the American Chemical Society, Little Rock, AR, Dec 1987, INOR 197.



**CURRICULUM VITA**  
**M. JEFFREY TAYLOR**  
**ASSOCIATE PROFESSOR OF CHEMISTRY**

**I. PERSONAL DATA:**

Date of Birth: June 23, 1962

**II. EDUCATION:**

Postdoctoral Fellow University of Illinois at Urbana-Champaign (1992-1994)

Ph.D. University of Arkansas, Fayetteville, AR, 1992 Ph.D.  
Biochemistry **GPA=4.0/4.0**

M.A. University of Texas; Austin TX; 1987 M.A. Chemistry **GPA=4.0/4.0**

B.S. University of Arkansas at Little Rock; Little Rock, AR, 1984 B.S.  
Chemistry (ACS Certified) **GPA=3.93/4.0** (magna cum laude, alpha  
epsilon)

High School Mountain View Public High School; Mountain View, AR; 1980 (honors)

**III. PROFESSIONAL HISTORY:**

1. Associate Professor of Chemistry, University of Arkansas at Monticello; Monticello, AR August 2006 - present.
2. Assistant Professor of Chemistry, University of Louisiana at Monroe; Monroe, LA, August 1995 – August 2006.
3. Adjunct Assistant Professor of Chemistry; Lyon College, Batesville, AR, August 1994 - May 1995.
4. Post-Doctoral Research Fellow; University of Illinois at Urbana-Champaign, Urbana, Illinois, June 1992 - August 1994.
5. Graduate Teaching/Research Assistant; University of Arkansas, 1987 - 1992.
6. Graduate Teaching/Research Assistant; University of Texas, 1984 - 1987.
7. University Lecturer, University of Arkansas at Little Rock, 1983 - 1984.
8. Laboratory Teaching Assistant, University of Arkansas at Little Rock, 1981 - 1983.

**IV. GRANTS FUNDED:**

1. "Molecular Modeling of Phylogenetically Significant Carotenoids" Danielle Cook and M. Jeffrey Taylor; (2014); Arkansas Space Grant Consortium; STEM Award; \$1500.
2. "Hydrogen Generation through the Electrolysis of Water"; Chris Roberts and M. Jeffrey Taylor; (2014); Arkansas Space Grant Consortium; STEM Award; \$1500.
3. "Hydrogen Generation through the Electrolysis of Water" Esgar Jimenez and M. Jeffrey Taylor; (2013); Arkansas Space Grant Consortium; STEM Award; \$1500.
4. "Proposal to Enhance Research and Academic Instruction Through the Use of Molecular Modeling"; M. Jeffrey Taylor; (2012); INBRE; \$11,447.
5. "2000 Undergraduate Biological Sciences Education Program"; F.L. Pezold, P.M.K. Aku, G.L. Stringer, S. Davis, A.M. Findley, M.J. Taylor, A.M. Hill; Howard Hughes Medical Institute (2000-2004), \$1,500,000.
6. "Sterilization Equipment for the Chemistry and Natural Sciences Building Laboratory Suite"; H. C. Bounds, A. M. Findley, J. A. Knesel, D. W. Pritchett, T. W. Sasek, T. G.

Lewis, W. C. Hoefler, J. L. Oakes, T. Smith, and M. J. Taylor; 1999-2000; ULM Development Grants Program, \$6,300.

7. "Molecular Modeling and Conformational Analysis of Biological Macromolecules"; M. Jeffrey Taylor; 1997-1999; Louisiana Educational Quality Support Fund (LEQSF), \$66,000.
8. "Teaching Molecular Biology in the Laboratory"; Ann M. Findley, Steven J. Hecht, Tsunami Yamashita, and M. Jeffrey Taylor; 1997-1998; NLU Development Program, \$8,000.
9. "Enhancement of Undergraduate Chemistry Instruction Utilizing Molecular Graphics"; M. Jeffrey Taylor; 1996-1997; Teaching and Learning Resource Center Grant (TLRC), \$4,000.

## V. AWARDS AND HONORS:

1. Recipient of 2015 Hornaday Outstanding Faculty Award.
2. Directed Top Student Poster Presentation in Chemistry at the Arkansas Academy of Sciences 2014 meeting.
3. Finalist for the 2014 Hornaday Outstanding Faculty Award.
4. Alpha-Chi Teacher of the Year for 2008.
5. Who's Who Among America's Teachers for 2002.
6. Alpha Lambda Delta Favorite Professor Award, Spring 2002.
7. Finalist selected for the Scott Endowed Professorship in Teaching Excellence, March 1999.
8. Outstanding Professor selected by Mortar Board and Omicron Delta Kappa, April 1999.
9. Radiation Oncology Training Post-Doctoral Fellowship (National Research Service Award derived from NIH) University of Illinois at Urbana-Champaign, June 1992 - August 1994.
10. University Dissertation Fellowship; University of Arkansas, 1990 – 1991.
11. Chemistry Department Fellowship for Entering Graduates; University of Arkansas, 1987.
12. Honorable Mention, National Science Foundation Graduate Fellowship; University of Texas, 1985.
13. Dupont Graduate Fellowship; University of Texas, 1984 – 1985.
14. Eakins Graduate Fellowship; University of Texas, 1984 – 1985.
15. Outstanding Senior Chemistry Student (American Institute of Chemists); UALR, 1984.
16. Outstanding Achievement in Chemistry (American Chemical Society); UALR, 1984.
17. Outstanding Analytical Chemistry Student (American Chemical Society); UALR, 1982.
18. Outstanding Freshman Chemistry Student (American Chemical Society); UALR, 1981.

## VI. THESES DIRECTED:

1. "Molecular Modeling Studies of Two 9,10-Diphenylanthracene Derivatives"; Reddy M. Chilakuri; December 2001.
2. "Theoretical Conformational Analysis of Four TNT-Degradation Products"; Zhong Li; May 2001.
3. Theoretical Conformational Analysis of Gramicidin-Like Channels"; Yi (Alex) Gu; May 1999.

## VII. SELECTED PUBLICATIONS:

1. Roger E. Koeppe II, J. Antoinette Killian, T. C. Bas Vogt, Ben de Kruijff, M. Jeffrey Taylor, Gwendolyn L. Mattice, and Denise V. Greathouse. "Palmitoylation-Induced Conformational Changes of Specific Side Chains in the Gramicidin Transmembrane Channel." (1995) *Biochemistry* **34**, 9299-9306.
2. J. Antoinette Killian, M. Jeffrey Taylor, and Roger E. Koeppe II. "Orientation of the Valine-1 Side Chain of the Gramicidin Transmembrane Channel and Implications for Channel Functioning. A  $^2\text{H}$  NMR Study." (1992) *Biochemistry* **31**, 11283-11290.

3. Linda P. Williams, Elizabeth J. Narcessian, Olaf S. Andersen, George R. Waller, M. Jeffrey Taylor, John P. Lazenby, James F. Hinton, and Roger E. Koeppe II. "Molecular and Channel-Forming Characteristics of Gramicidin K's: A Family of Naturally Occurring Acylated Gramicidins." (1992) *Biochemistry* **31**, 7311-7319.
4. Roger E. Koeppe, M. Jeffrey Taylor, and Olaf S. Andersen. "Models for Gramicidin Channels." (1992) *Biophysical J.* **61**, 831.
5. M. Jeffrey Taylor, James F. Hinton and Roger E. Koeppe II "2D NMR Determination of the Structure of Acylated Gramicidin in d<sub>25</sub>SDS Micelles." (1992). *Biophysical J.* **61**, 3038a.
6. M. Jeffrey Taylor, Gwendolyn L. Mattice, James F. Hinton and Roger E. Koeppe II "NMR Studies of Acylated Gramicidin in d<sub>6</sub>DMSO Solution and d<sub>25</sub>SDS Micelles." (1991), *Biophysical J.* **59**, 319a.
7. M. Jeffrey Taylor and Roger E. Koeppe II "NMR Studies of Tyr-1 Gramicidin A. " (1990) *Biophysical J.* **57**, 99a.

#### VIII. SELECTED PRESENTATIONS:

1. Danielle S. Cook and M. Jeffrey Taylor, "Construction of a Large Scale Photovoltaic Hydrogen Gas Generator"; Posters at the Capitol, Feb. 11, 2015, Little Rock, AR.
2. Danielle S. Cook and M. Jeffrey Taylor, "Molecular Orbital Calculations of Echinenone and 3-Hydroxyechinenone from Orange Carotenoid Proteins from Algae"; INBRE, Nov. 8, 2014, Fayetteville, AR.
3. Esgar Jimenez and M. Jeffrey Taylor, "Photovoltaic Generation of Hydrogen" Arkansas Space Grant Consortium Symposium, April 7, 2014, Hot Springs, AR.
4. Ryan M. Reyes and M. Jeffrey Taylor, "Molecular Modeling Studies of Phylogenetically Significant Carotenoids of Oxygenic Phototrophs", Meeting of the Arkansas Academy of Sciences, April 5, 2014, Harding University.
5. Ryan M. Reyes and M. Jeffrey Taylor, "Molecular Modeling Studies of Phylogenetically Significant Carotenoids of Oxygenic Phototrophs", National Meeting of the American Chemical Society, March 15-17, 2014, Dallas, TX.
6. Esgar Jimenez and M. Jeffrey Taylor; "Hydrogen Generation through the Hydrolysis of Water"; ARKLSAMP Poster Presentation; April 19-20, 2012.
7. Reddy M. Chilakuri and M. Jeffrey Taylor; "Conformational Analysis of Diphenylanthracenes by Molecular Mechanics"; First Annual ULM Student Research Symposium; University of Louisiana at Monroe, Monroe LA, Apr. 18, 2001.
8. Zhong Li and M. Jeffrey Taylor; "Conformations of TNT-Degradation Products Determined by Molecular Mechanics"; 74th Annual Meeting of the Louisiana Academy of Sciences, Centenary College, Shreveport, LA, Feb. 4, 2000.
9. M. Jeffrey Taylor and Andrew H.-J. Wang; "The solution Structures of Four DNA Oligonucleotides Containing Tandem GA Mismatched Base-Pairs as Determined by Two-Dimensional NMR Spectroscopy"; Cell and Molecular Biology and Molecular Biophysics Research Symposium, Beckman Institute, Urbana, IL, Sep. 11, 1993.
10. J. Antoinette Killian, M. Jeffrey Taylor and Roger E. Koeppe II; "Orientation of the Val<sup>1</sup> Side Chain of Gramicidin A in Lipid Bilayers"; Cell and Molecular Biology and Molecular Biophysics Research Symposium, Beckman Institute, Urbana, IL, Sep. 19, 1992.
11. M. Jeffrey Taylor, James F. Hinton and Roger E. Koeppe II; "2D NMR Determination of the Structure of Acylated Gramicidin in d<sub>25</sub>SDS Micelles"; Biophysical Society National Meeting, Houston, TX, Feb. 9-13, 1992.

12. M. Jeffrey Taylor, Gwendolyn L. Mattice, James F. Hinton and Roger E. Koeppe II; "NMR Studies of Acylated Gramicidin in  $d_6$ DMSO Solution and  $d_{25}$ SDS Micelles"; American Society for Biochemistry and Molecular Biology Fall Symposium, Keystone CO, Oct. 11-14, 1991.
13. M. Jeffrey Taylor, Gwendolyn L. Mattice, James F. Hinton and Roger E. Koeppe II; "NMR Studies of Acylated Gramicidin in  $d_6$ DMSO Solution and  $d_{25}$ SDS Micelles"; Biophysical Society National Meeting, San Francisco, CA, Feb. 24-28, 1991.
14. M. Jeffrey Taylor and Roger E. Koeppe II; "NMR Studies of Tyr-1 Gramicidin A"; Biophysical Society National Meeting, Baltimore MD, Feb. 18-22, 1990.

# Jinming Huang

School of Mathematical and Natural Sciences, University of Arkansas, Monticello, AR 71656. Ph: 870-460-1866 (O), 336-831-4122 (Cell), Email: [huang@uamont.edu](mailto:huang@uamont.edu); [jinminghuang@hotmail.com](mailto:jinminghuang@hotmail.com)

## Education

Ph.D.: Inorganic Chemistry (Bioinorganic), Fudan University, Shanghai, China. 1999  
M.S: Analytical Chemistry, East China University of Sci & Tech, Shanghai, China. 1990  
B.S: Analytical Chemistry, Soochow University, Suzhou, China. 1987

## Academic Experience

**Apr 2013 - Present**, Associate Professor of Chemistry (with tenure), University of Arkansas, Monticello, AR, USA.

**Teaching:** General Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry (Thermodynamics), Physical Chemistry (Kinetics and Quantum Mechanics), and Elements of Physical Chemistry (for life science). The above courses include lecture and lab.

**Research:** Investigating how nitrite and nitrate content change in fresh vegetables during storage, funded by NASA and NSF EPSCoR.

**Aug 2007 - Apr 2013**, Assistant Professor of Chemistry, University of Arkansas, Monticello, AR, USA. 2007 (Spring), Adjunct Instructor, Appalachian State University, Boone, NC, USA.

**Teaching:** Introductory Chemistry lab and Organic Chemistry lab.

**May 2004 - Jul 2007**, Research Assistant Professor, Wake Forest University, Winston Salem, NC, USA.

**Research:** Demonstrated the metabolism of hydroxyurea to nitric oxide by rat liver; identified and quantitatively determined intermediates during the nitric oxide formation from hydroxyurea; illustrated the mechanism and quantitatively determined of nitric oxide formation from nitrite; Evaluated new nitric oxide donors reaction with heme-proteins.

**Oct 2000 - Apr 2004**, Post-Doctoral Research Associate. Wake Forest University.

**Research:** Quantitatively determined the nitric oxide generation from reaction of hydroxyurea with heme proteins. Cloned and over-expressed ribonucleotide reductase (RNR) and the interaction study of hydroxyurea with RNR.

**Aug 1999 - Sep 2000**, Post-Doctoral Research Associate. University of North Carolina, Chapel Hill, NC, USA.

**Research:** Studied the water-soluble short chain phospholipid regulating the inactivation of blood coagulation factor Va by activated protein C.

## Industrial Experience

1990-1995. Research scientist, Shanghai Institute of Biological Products, Shanghai, China.

Developed processes for purification of various proteins (blood coagulation factors) from human blood, both in laboratory and pilot plant scale with virus inactivation process; developed analytical methods to characterize these protein products and quantitative determined chemical residues in these proteins.

## Services

Instructor of Chinese Language, University of Arkansas at Monticello, 2013 - 2014

Member of Curriculum and Standards Committee, University of Arkansas at Monticello, 2010 - 2012

Member of Faculty Research Committee, University of Arkansas at Monticello, 2009 - 2011

Advisor of Chemistry Majors, Chemistry Department, University of Arkansas at Monticello

## Award

Outstanding Post-doctoral Fellow Award of the American Institute of Chemists, USA, May 2003

## Research Funding

Mentor, Student Undergraduate Research Fellowship (SURF), Arkansas Department of Higher Education, \$4000, (2015)

PI, Research Infrastructure Grant, NASA-Arkansas Space Grant Consortium, \$5000, (2014-2015)

PI, Research Infrastructure Grant, NASA-Arkansas Space Grant Consortium, \$5900, (2013-2014)

Mentor, STEM Minority Award, NASA-Arkansas Space Grant Consortium, \$2500, (2012-2013)

PI, Research Infrastructure Grant, NASA-Arkansas Space Grant Consortium, \$5600, (2012-2013)

Mentor, Student Undergraduate Research Fellowship (SURF), NSF EPSCoR, \$4000, (2012)

PI, Research Infrastructure Grant, NASA-Arkansas Space Grant Consortium, \$21300, (2011-2012)

Mentor, Student Undergraduate Research Fellowship (SURF), NSF EPSCoR, \$4000, (2011)

PI, Research Infrastructure Grant, NASA-Arkansas Space Grant Consortium, \$5300, (2010-2011)

PI, Research Infrastructure Grant, NASA-Arkansas Space Grant Consortium, \$9700, (2009-2010)

PI, University of Arkansas at Monticello Faculty Research Grant, \$2000. (2009-2010)

## Patent

1. Lentz, Barry R., Monroe, Dougald M., Majumder, Rinku, Huang, Jinming: Soluble Phospholipids for Use in Clotting Factor Assays. US Patent 20070037235

## Recent Publications

1. **Jinming Huang**, Joshua Hathcox, Samuel Pope, and MacKenzie Willis, Nitrate and Nitrite Change during Storage in Several Vegetable Juices (Submitted to Food Chemistry).

2. Sonia Donzelli, Michael Graham Espey, Wilmarie Flores-Santana, Christopher H. Switzer, Grace C. Yeh, **Jinming Huang**, Dennis J. Stuehr, S. Bruce King, Katrina M. Miranda, and David A. Wink, Generation of nitroxyl by heme protein-mediated peroxidation of hydroxylamine but not *N*-hydroxy-L-arginine, *Free Rad. Biol. Med.* **2008**, 45(5): 578-584.

3. Michael J. Gorczynski, **Jinming Huang**, Heather Lee, S. Bruce King, Evaluation of Nitroalkenes as Nitric Oxide Donors, *Bioorg & Med Chem Letters*. **2007**, 17: 2013-2017.

4. Swati Basu, Rozalina Grubina, **Jinming Huang**, Zhi Huang, Anne Jeffers, Alice Jiang, Xiaojun He, Ivan Azarov, Ryan Seibert, Ahtul Mehta, Rakesh Patel, Neil Hogg, S. Bruce King, Mark T. Gladwin, Daniel B. Kim-Shapiro, Mechanism of NO escape from the erythrocyte: Catalytic generation of N<sub>2</sub>O<sub>3</sub> by a concerted nitrite reductase/anhydrase activity of hemoglobin, *Nature Chemical Biology* **2007**, 3(12): 785-794.

5. **Jinming Huang**, Mamudu Yakubu, Daniel B. Kim-Shapiro, S. Bruce King, Rat Liver Mediated Metabolism of Hydroxyurea to Nitric Oxide, *Free Rad. Biol. Med.* **2006**, 40(9): 1675-1681.

6. Kris T. Huang, Ivan Azarov, Swati Basu, **Jinming Huang**, Daniel B. Kim-Shapiro, Lack of allosterically controlled intramolecular transfer of nitric oxide from beta heme to cysteine, *Blood* **2006**, 107(7): 2602-2604.

7. Swati Basu, Jared D. Hill, Howard Shields, **Jinming Huang**, S. Bruce King, and Daniel B Kim- Shapiro, Hemoglobin effects in the Saville Assay, *Nitric Oxide: Biology and Chemistry* **2006**, 15: 1-4.

8. Michael J. Gorczynski, **Jinming Huang**, S. Bruce King, Regio- and Stereospecific Syntheses and Nitric Oxide Donor Properties of (E)-9-and (E)-10-Nitrooctadec-9-enoic Acids, *Organic Letters* **2006**, 8 (11): 2305-2308.

9. Bubing Zeng, **Jinming Huang**, Marcus W. Wright, and S. Bruce King, Nitroxyl (HNO) release from new functionalized N-hydroxyurea-derived acyl nitroso-9,10-dimethylanthracene cycloadducts, *Bioorg. & Med. Chem. Letters* **2004**, 14: 5565-5568.

10. **Jinming Huang**, Daniel B. Kim-Shapiro, and S. Bruce King, Catalase Mediated Nitric Oxide Formation from Hydroxyurea, *J. Med. Chem* **2004**, 47(14): 3495-3501.
11. **Jinming Huang**, Zhou Zou, Daniel B. Kim-Shapiro, Samir K. Ballas, and S. Bruce King, Hydroxyurea Analogues as Kinetic and Mechanistic Probes of the Nitric Oxide Producing Reactions of Hydroxyurea and Oxyhemoglobin, *J. Med. Chem* **2003**, 46(17): 3748-3753.
12. Virginia L. Lockamy, **Jinming Huang**, Howard Shields, Samir K. Ballas, S. Bruce King, and Daniel B. Kim-Shapiro, Urease Enhances the Formation of Iron Nitrosyl Hemoglobin in the Presence of Hydroxyurea, *Biochim. Biophys. Acta* **2003**, 1622: 109-116.
13. **Jinming Huang**, Shreeshailkumar B. Hadimani, Jeremy W. Rupon, Samir K. Ballas, Daniel B. Kim-Shapiro, and S. Bruce King, Iron Nitrosyl Hemoglobin Formation from the Reactions of Hemoglobin and Hydroxyurea, *Biochemistry* **2002**, 41(7): 2466-2474.
14. **Jinming Huang**, Erin Sommers, Daniel B. Kim-Shapiro, and S. Bruce King, Horseradish Peroxidase Catalyzed Nitric Oxide Production from Hydroxyurea, *J. Am. Chem. Soc.* **2002**, 124(13): 3473-3480.

## Recent Meeting Presentations

1. Cynthia Robinson, Autumn Webb, and **Jinming Huang** (P.I.), Cabbage Inhibits Nitrate Reduction in Celery during Storage, 23<sup>th</sup> Annual ASGC Symposium, Hot Springs, AR, Apr 10, **2015**. (Student poster presentation)
2. Cynthia Robinson, Alex White, and **Jinming Huang** (P.I.), Nitrate can be reduced to nitrite in celery during storage, 22<sup>th</sup> Annual ASGC Symposium, Hot Springs, AR, Apr 7, **2014**. (Student poster presentation)
3. **Jinming Huang\***, Nathan Probst, Samuel Pope, Mackenzie Willis, Joshua Hathcox, Trent Roberts, Alexandra White, Dynamics of Nitrate Contents in Several Vegetables during Storage, 245<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, Apr 7-11, **2013**. (Oral Presentation)
4. Nathan Probst, Samuel Pope, Joshua Hathcox, Mackenzie Willis, and **Jinming Huang** (P.I.), Is Nitrate More Stable in Cabbage than in Lettuce and Spinach? 20<sup>th</sup> Annual ASGC Symposium, Winthrop Rockefeller Institute, AR, April 20, **2012**. (Student Poster Presentation)
5. Trent Roberts, Samuel Pope, Joshua Hathcox, Mackenzie Willis, and **Jinming Huang** (P.I.), The Effect of Temperature on Nitrate Reduction in Lettuce During Storage, 20<sup>th</sup> Annual ASGC Symposium, Winthrop Rockefeller Institute, AR, Apr 20, **2012**. (Student Poster Presentation)
6. **Jinming Huang** (P.I), Nathan Probst, Samuel Pope, Mackenzie Willis, Nitrate Contents Change during Storage in Lettuce and Cabbage, 43<sup>rd</sup> Middle Atlantic Regional Meeting of American Chemical Society, Baltimore, MD, May 31- Jun22, **2012**. (Oral Presentation)
7. Samuel Pope, Joshua Hathcox, Mackenzie Willis, and **Jinming Huang** (P.I), Nitrate and Nitrite Contents Investigation in Fresh Lettuce, 19<sup>th</sup> Annual NASA-ASGC Symposium, Winthrop Rockefeller Institute, AR, April 22, **2011**. (Student Poster Presentation)
8. **Jinming Huang** (P.I), Samuel Pope, Joshua Hathcox, and Mackenzie Willis, A Simple Method for Determination of Nitrate in Leafy Vegetables, 19<sup>th</sup> Annual NASA-ASGC Symposium, Winthrop Rockefeller Institute, AR, Apr 22, **2011**. (Oral Presentation)
9. **Jinming Huang** (P.I), Joshua Hathcox, and Mackenzie Willis, Nitrate and nitrite in fresh spinach, Joint 66<sup>th</sup> SWRM and 62<sup>nd</sup> SERMACS of American Chemical Society, New Orleans, LA, Dec 1-4, **2010**. (Student Poster Presentation)
10. **Jinming Huang** (P.I) and Mackenzie Willis, Nitrate and nitrite in spinach, romaine, cilantro, and NAPA- cabbage, 94<sup>th</sup> Annual Meeting of the Arkansas Academy of Science, Little Rock, AR, Apr 9-10, **2010**. (Student Poster Presentation)
11. **Jinming Huang** (P.I), S. Bruce King, Daniel B. Kim-Shapiro, Detection of Nitroxyl from hydroxamic Acids, 64<sup>th</sup> Southwest Regional Meeting of American Chemical Society, little Rock, AR, Oct 1-4, **2008**. (Oral Presentation)

12. **Jinming Huang**, Howard Shields, Rachel Maree, Daniel B. Kim-Shapiro, S. Bruce King, NO Donor Properties of Ferrous Catalase-NO Complex, 4<sup>th</sup> International Conference: Biology, Chemistry & Therapeutic Applications of Nitric Oxide, Monterey, CA, Jun 25-29, **2006**.
13. Michael J. Gorczynski, **Jinming Huang**, Rich Alexander, Darcy Bates, Charles Morrow, S. Bruce King, Regio- and stereospecific syntheses, nitric oxide donor properties, and PPAR $\gamma$  activity of (E)-9-and (E)-10-nitrooctadec-9-enoic acids, 4<sup>th</sup> International Conference: Biology, Chemistry & Therapeutic Applications of Nitric Oxide, Monterey, CA, Jun 25-29, **2006**.
14. **Jinming Huang**, Swati Basu, S. Bruce King, Daniel B. Kim-Shapiro, Nitrosothiol Formation from the Reaction of Nitrite and Hemoglobin, 12<sup>th</sup> Annual Meeting of the Society for Free Radical Biology and Medicine, Austin, TX, Nov 16-20, **2005**.
15. Mamudu Yakubu, **Jinming Huang**, Daniel B. Kim-Shapiro, and S. Bruce King, GC/MS Analysis of Hydroxylamine Metabolite of Hydroxyurea in Rat Liver Microsomes, 229<sup>th</sup> National Meeting of the American Chemical Society, San Diego, CA, Mar 13-17, **2005**.
16. **Jinming Huang**, Daniel B. Kim-Shapiro, S. Bruce King, Metabolism of Hydroxyurea to Nitric Oxide by Rat Liver, 11<sup>th</sup> Annual Meeting of the Society for Free Radical Biology and Medicine, St. Thomas, U.S. Virgin Islands, Nov 17-21, **2004**.
17. Kris Huang, Xiuli Xu, Howard Shields, Anne Jeffers, Man Cho, **Jinming Huang**, Bruce King, Mark Gladwin, Rakesh Patel, Daniel Kim-Shapiro, Nitrite and deoxygenated hemoglobin: A source of nitric oxide, 48<sup>th</sup> Annual Biophysical Society Meeting, Baltimore, MD, Feb 14-18, **2004**.
18. Virginia L. Lockamy, **Jinming Huang**, Mamudu Yakubu, Howard Shields, Samir K. Ballas, S. Bruce King, Daniel B. Kim-Shapiro, The Search for the Mechanism of NO Release in Hydroxyurea Therapy, 48<sup>th</sup> Annual Biophysical Society Meeting, Baltimore, MD, Feb 14-18, **2004**.
19. Zhou Zou, **Jinming Huang**, Dennis Parrish, and Bruce King, Amino-Hydroxycyclohexane and cyclopentane Derived N-Hydroxyureas as New Nitric Oxide Donors, The 56<sup>th</sup> Southeast Regional Meeting of American Chemical Society, Research Triangle Park, NC, Nov10-13, **2004**.
20. **Jinming Huang**, Bernard A. Brown II, and S. Bruce King, Potential Nitric Oxide Producing Reactions of *E. Coli* Ribonucleotide Reductase with Hydroxyurea, 10th Annual Meeting of the Society for Free Radical Biology and Medicine, Seattle, WA, Nov 20-24, **2003**.
21. Dennis Parrish, **Jinming Huang**, S. Bruce King, Synthesis and Evaluation of Carbohydrate Based Hydroxyureas as Therapeutic Agents for Breast Cancer, 55<sup>th</sup> Southeast Regional Meeting of the American Chemical Society, Atlanta, GA, Nov 16-19, **2003**.
22. Virginia L. Lockamy, **Jinming Huang**, Howard Shields, Fouad Azizi, Samir K. Ballas, S. Bruce King and Daniel B. Kim-Shapiro, In Search of the Physiologically Relevant Mechanism for NO Release in Hydroxyurea Therapy, 47<sup>th</sup> Annual Biophysical Society Meeting, San Antonio, TX, Mar 1-5, **2003**.



# Andrew Williams

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288 Bradley 97 Rd, Warren, AR 72675 ♦ 479-220- 9197 ♦ andrewwms@hotmail.com

## ♦ Education:

Ph.D. in Chemistry. University of Arkansas. Graduated: December 2009.

Major focus-Inorganic Chemistry

Advisor: Dr. Bill Durham

B.S. in Chemistry. John Brown University, Siloam Springs, AR. Graduated: May 2004.

## ♦ Teaching Experience:

Assistant Professor: Fall 2009-Present

University of Arkansas Monticello

Courses: Introduction to Chemistry, Introduction to Organic and Biochemistry, General Chemistry I, General Chemistry II, Advanced Inorganic Chemistry, Forensic Chemistry, Quantitative Analysis, Advanced Lab Techniques, Chemistry Research, Labs for Introduction to Chemistry, General Chemistry I, and General Chemistry II.

*Introductory Chemistry* covers basic chemical principles including conversions, stoichiometry, gas laws, and bonding.

*Intro Organic and Biochemistry* covers organic naming and reactions, and the uses of those reactions in biochemical processes.

*General Chemistry I* covers basic conversions, stoichiometry, atomic structure, reactions, gas laws, energy relationships, electronic structure, and bonding.

*General Chemistry II* covers intermolecular forces, chemical kinetics, equilibrium, and thermodynamics.

*Advanced Inorganic Chemistry* covers atomic structure, molecular structure and bonding, the structure of simple solids, acids and bases, redox reactions, molecular symmetry and coordination compounds, physical techniques, d-metal chemistry, nonmaterial, and biological inorganic chemistry.

*Quantitative Analysis* covers analytical though processes, statistics and sampling, techniques such as titrations and gravimetric analysis, as well as many types of equilibrium including acid-base, EDTA complexes, and solubility product.

*Forensic Chemistry* covers scientific thought and statistics, sample preparation and instrumentation, drug analysis, and chemical analysis of physical evidence.

*Advanced Lab Techniques* brings to the upper level students a chance to see more specialized techniques such as scientific glassblowing, and a chance to begin scientific literature review in the classroom.

*Chemistry Research* allows students the chance to do independent research, with the resulting research being presented in the form of a poster or oral presentation at a regional conference.

*Introduction to Chemistry Lab* shows basic lab safety and techniques.

*General Chemistry I Lab* shows basic lab safety and techniques, with more emphasis on calculations and independent thinking.

*General Chemistry II Lab* continues where General Chemistry I Lab leaves off and introduces more complex techniques such as qualitative analysis and titrations.

Instructor: Fall 2008-Summer 2009  
Northeastern State University  
Courses: General Chemistry I Lecture and Lab

*General Chemistry I* covers basic conversions, stoichiometry, atomic structure, reactions, gas laws, energy relationships, electronic structure, and bonding.

*General Chemistry I Lab* shows basic lab safety and techniques, with more emphasis on calculations and independent thinking.

Graduate Assistant: Summer 2008  
University of Arkansas  
Course: Fundamentals of Chemistry Lecture

*Fundamentals of Chemistry* covers many of the same items found in General Chemistry, but with less emphasis on the calculations.

Research Assistant: Fall 2006-Spring 2006  
University of Arkansas

Graduate Assistant: Fall 2004-Spring 2006  
University of Arkansas  
Lab courses: Organic Chemistry I, General Chemistry II Honors, Analytical Chemistry

◆ **Publications:**

Snider, T; Williams, A. Characterization of Fatty Acid Content in Freshwater *Eustigmatophyceae*. ASGC In review, 2014.

Williams, A.L.; Bhuiyan, A.A.; Turner, M.O.; Millett, F.; Durham, Bill. "Synthesis and Characterization of Cr(III), Mn(II), Co(II), Ni(II) and Cu(II) complexes with a hexadentate hemi-cage ligand formed with bipyridine." *J. Coord. Chem.* 64, 48-56 (2011).

Williams A. Synthesis and Characterization of Chromium(III) and Other Metal Complexes Formed by Reaction with a Hexadentate Polypyridine Ligand. Ph.D. Thesis, University of Arkansas, Fayetteville, AR, 2009.

#### ◆ Presentations:

*Determination of Fatty Acid Content in Algae.* Powerpoint presentation given at the fall 2015 26<sup>th</sup> MICA meeting, University of Arkansas at Fort Smith, Fort Smith, AR.

*Chemistry of a Cr(cage)<sup>3+</sup> complex.* Powerpoint presentation given at the fall 2009 MICA meeting, University of Central Arkansas, Conway, AR.

*Photoredox Capabilities of a Caged Chromium Complex.* Poster presented at the fall 2008 Oklahoma Research Day, Northeastern State University, Broken Arrow, OK.

*Preparation of a Chromium cage complex.* PowerPoint presentation given at the fall 2005 MICA meeting.

#### ◆ Student Presentations:

Determination of Fatty Acid Content in Native Arkansas Algae. White, D, Snider, T, Williams, A. Poster presented at 23<sup>rd</sup> Arkansas Space Grant Symposium. April 10, 2015. Hot Springs Convention Center, Hot Springs, AR.

Determination of Fatty Acid Content in Native Arkansas Algae. Snider, T, Williams, A. Oral presentation given at 23<sup>rd</sup> Arkansas Space Grant Symposium. April 10, 2015. Hot Springs Convention Center, Hot Springs, AR.

Determination of Fatty Acid Content in Native Arkansas Algae. Snider, T, Williams, A. Poster presented at Posters at the Capital. February 11<sup>th</sup>, 2015. Little Rock, AR.

Determination of Fatty Acid Content in Native Arkansas Algae. Snider, T, Williams, A. Poster presented at Arkansas INBRE Research Conference. November 7<sup>th</sup>, 8<sup>th</sup>, 2014. Fayetteville, AR.

Determination of Fatty Acid Content in Native Arkansas Algae. Snider, T, Williams, A. Oral presentation at 21<sup>st</sup> MICA. October 25<sup>th</sup>, 2014. UAM, Monticello, AR.

Determination of Fatty Acid Content in Native Arkansas Algae. Snider, T, Williams, A. Poster presented at 22<sup>nd</sup> Arkansas Space Grant Symposium. April 7, 2014. Hot Springs Convention Center, Hot Springs, AR.

Anion Composition of Aerosols. Newhouse, K, Fong, B, Williams, A, Ali, H. Poster presented at 22<sup>nd</sup> Arkansas Space Grant Symposium. April 7, 2014. Hot Springs Convention Center, Hot Springs, AR.

Determination of Fatty Acid Content in Native Arkansas Algae. Snider, T, Williams, A.  
Poster presented at Arkansas INBRE Research Conference. October 21, 2013. Fayetteville, AR.

Anion Composition of Aerosols. Kiara Newhouse, Bryant Fong and Hashim Ali. Poster presented  
at 19<sup>th</sup> Mid-South Inorganic Chemists Association Meeting. October 5<sup>th</sup>, 2013.

Method Development for the Characterization for Fatty Acid Content in Freshwater  
Eustigmatophyceae. Snider, T, Williams, A. Poster presented at 21<sup>st</sup> Arkansas Space Grant  
Symposium. April 19, 2013. The Winthrop Rockefeller Institute, Morrilton, AR.

Method Development for the Characterization for Fatty Acid Content in Freshwater  
Eustigmatophyceae. Jager, M, Williams, A. Poster presented at 20<sup>th</sup> Arkansas Space Grant  
Symposium. April 20, 2012. The Winthrop Rockefeller Institute, Morrilton, AR.

Method Development for the Characterization for Fatty Acid Content in Freshwater  
Eustigmatophyceae. Snider, T, Williams, A. Poster presented at Posters at the Capital. February  
21, 2012. Little Rock, AR.

Method Development for the Characterization for Fatty Acid Content in Freshwater  
Eustigmatophyceae. Jager, M, Williams, A. Poster presented at Arkansas INBRE Research  
Conference. October 21, 2011. Fayetteville, AR.

Method Development for the Characterization for Fatty Acid Content in Freshwater  
Eustigmatophyceae. Jager, M, Williams, A. Poster presented at 19<sup>th</sup> Arkansas Space Grant  
Symposium. April 22, 2011. The Winthrop Rockefeller Institute, Morrilton, AR.

#### ◆ Professional Service:

June 2013 and following Served with Achieve on the Next Generation Science Standards  
(NGSS)

Fall 2012 to Spring 2014 Served on the University Curriculum and Standards Committee

Spring 2012 Served on the University Cost Containment Committee

Fall 2010 to Spring 2012 Served on the University Faculty Grievance Committee

March 13, 2010 Organized the 15<sup>th</sup> MICA meeting, held at UAM Science Center

#### ◆ Professional Associations:

American Chemical Society

MICA (Mid-South Inorganic Chemistry Association)

Sigma Zeta Beta Pi Chapter

◆ **Awards:**

Hornaday Outstanding Faculty Award Nominee 2014

Awarded UAM Knights *Alvy Early "Spirit of Knighthood"* 2013

Alpha Chi Rookie of the Year Zeta Chapter 2012

Alpha Chi Rookie of the Year Zeta Chapter Nominee 2011

Alpha Chi Rookie of the Year Zeta Chapter Nominee 2010

## SUSAN E. HATFIELD

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Bryan, TX 77802

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### HIGHLIGHTS OF QUALIFICATIONS

- Seven years experience instructing undergraduate laboratories
- Over seven years experience with maintaining inventories, organizing, and purchasing of materials, chemicals, and equipment for laboratories.
- Experienced with safety principles and practices including risk assessment and management, emergency response planning, and hazardous waste disposal.
- Well-organized, detail-oriented team member with excellent oral and written communication skills.
- Synthesized and purified organic compounds including small molecules, polymers, dendrons, dendrimers, and dendritic compounds on a solid support
- Experienced in use and analysis of various analytical techniques including NMR spectroscopy, GC, HPLC, FT-IR and ATR FT-IR spectroscopy, UV/Vis spectrometry, IC, GPC, DSC, and rheometry.

### EDUCATION

#### **M.S./Chemistry**

May 2007, Texas A&M University, College Station, TX. GPA 3.647

Thesis: "Applications of Triazine Chemistry: Education, Remediation, and Drug Delivery" Advisor: Dr. Eric E. Simanek

#### **B.S./Chemistry**; Minor concentration: Mathematics

May 2002, University of Arkansas at Monticello, Monticello, AR; GPA 4.0 *Summa Cum Laude*

### EXPERIENCE

August 2015-Present **University of Arkansas at Monticello**, Monticello, AR, Chemistry Lab Instructor

- In charge of General Chemistry and Introductory Chemistry stockroom, and instructing all sections of those courses.
- Maintain all necessary chemicals and supplies for the laboratory
- Work closely with Chemistry faculty members and coordinate waste chemical storage and removal

March 2012-Present **TDI-Brooks International, Inc./B&B Laboratories**, College Station, TX,  
Laboratory Supervisor

- Supervise five laboratory technicians during the extraction process of tissues, sediments, and water samples for environmental or geochemical analysis
- Maintain all necessary chemicals and supplies in the laboratory

- Schedule work to maximize efficiency and quality of extraction process
- Work closely with the QA officer for development and implementation of SOPs, and the adherence of documentation and processes for ISO 9001 and NELAP.

August 2010-May 2013 **Blinn College**, Bryan, TX, Adjunct Chemistry Instructor

- Instructed undergraduate General Chemistry course and the accompanying laboratory.
- Responsible for writing and grading exams, quizzes, laboratory exams, etc, as determined by curriculum.

Nov. 2010-March 2012 **Department of Chemistry, Texas A&M University**, Organic Chemistry Laboratory Program, College Station, TX, Technician II

- Prepared and organized needed materials and chemicals for over 1000 students enrolled in undergraduate organic chemistry laboratory courses
- Supervised and trained approximately 15 undergraduate student workers each semester in the preparation and distribution of these supplies, as well as the proper collection and disposal of chemical waste
- Served as Departmental Hazardous Waste Facility Coordinator to ensure proper segregation of classes of chemicals, and proper identification of each container. Worked closely with the University's Safety Officer to ensure department is in compliance with Federal, State, and University policies and regulations. Participated in the Texas A&M University Hazardous Waste Research Group.

June 2010-Nov. 2010 **Energy Laboratories, Inc.**, College Station, TX, Analyst

- Utilized analytical techniques for environmental testing of raw water samples under specific quality control standards.
- Used LIMS system for data entry and inventory management.

November 2009-February 2010 **ExxonMobil Research & Engineering**, Structure & Performance of Organic Materials, Annandale, NJ, Research Technician

- Synthesized polyolefin compounds using air-free conditions and techniques.
- Led the startup process for a Parr Autoclave system to be used for transition-metal mediated olefin polymerizations.

June 2007-October 2009 **ExxonMobil Upstream Research Company**, Gas & Facilities Division, Corrosion & Flow Technology, Houston, TX, Technical Specialist

- Investigated the effects of environmental factors on materials in sweet and sour gas using electrochemical measurements and optical analytical techniques.
- Determined the properties of waxy crude oil samples using DSC, GC, and rheometry.
- Investigated the properties of kinetic hydrate inhibitors.

- Coordinated emergency response drills, assisted in semi-annual calibration of alarm system, conducted daily safety meetings and activity briefings, conducted quarterly safety inspections, provided safety briefings to lab visitors, and served as a safety leader.

Sept. 2002-May 2007 **Department of Chemistry, Texas A&M University**, College Station, TX,  
Graduate Research Assistant/Teaching Assistant

- Developed an undergraduate chemistry laboratory exercise to demonstrate the nucleophilic aromatic substitution of an organic molecule with environmental and societal applications
- Instructed undergraduate laboratories including Fundamentals in Chemistry I & II, Introduction to Organic and Biochemistry, Organic Chemistry II, and Organic Synthesis and Analysis
- Synthesized chitosan-based materials for environmental remediation.
- Synthesized triazine-based dendrimers for biomedical applications including drug delivery and imaging

Aug. 2000-Aug. 2002 **School of Mathematical and Natural Sciences, University of Arkansas at Monticello**, Monticello, AR, Research Assistant

- Synthesized copolymers of furan with pyrrole or thiophene in both the undoped and doped states to determine conductive properties
- Analyzed the activity of novel cathepsin-D enzyme inhibitors

#### **PROFESSIONAL DEVELOPMENT AND TRAINING**

- “Recent Developments of Organic Synthesis” – American Chemical Society Short Course
- “Introduction to Polymer Synthesis” – Center for Engineered Polymeric Materials, College of Staten Island, City University of New York
- “Corrosion: Fundamentals and Experimental Methods” – Department of Engineering Science and Mechanics, Penn State University



# Kelley L. Sayyar

**Address:** 523 E. Willis Ave.  
Monticello, AR, 71655

**Phone:** (870)224-1676

**Email:** [sayyark@uamont.edu](mailto:sayyark@uamont.edu)

## **Education:**

2010 M.S. degree in Geosciences, Mississippi State University

1989 B.S. degree in Biology and Life Sciences, Kansas State University

## **Professional Experience:**

### **University of Arkansas at Monticello, Monticello, AR**

2015-Present Instructor of Earth Sciences, School of Mathematical and Natural Sciences.

1999-2015 Instructor of Chemistry Laboratory, School of Mathematical and Natural Sciences.

Courses Taught at UAM: Introductory Chemistry Lab, General Chemistry I & II Lab, Organic Chemistry II Lab, Geology Lecture & Lab, Earth and Atmosphere Lecture & Lab, On-line Meteorology Lecture & Lab, Astronomy Lecture & Lab.

### **Kansas State University, Manhattan, KS**

1996 Research Assistant (Electron Microscopy), Department of Anatomy and Physiology, College of Veterinary Medicine, Kansas State University, Manhattan, Kansas

1989-1995 Research Instrument Operator (Electron Microscopy), Department of Anatomy and Physiology, College of Veterinary Medicine.

## **Publications:**

2006. McConnell, R.M., Trana, C.J., Green, A.W., Myers, N., Hatsfield, S.E., Sayyar, K.L. and Godwin, W.E., Development of cathepsin D inhibitors with new hydroxyethyl cyclic piperazine derivatives, *Journal of Undergraduate Research* **1**: 19-27.

2005. McConnell, R.M., Godwin, W.E., Sayyar, K, Trana, C.J., Green, A.W., McConnell, M.S., Young, A., Young, L., Hatsfield, S.E., Synthesis and evaluation of new cathepsin D inhibitors, *Journal of the Arkansas Academy of Science*, vol. 59.

1998. Westfall, J. A. , Sayyar, K. L. and Elliott, C. F., Cellular origins of kinocilia, stereocilia, and microvilli on tentacles of sea anemones, *Calliactis* (Cnidaria: Anthozoa), *Invertebrate Biology* **117(3)**: 186-193.

1997. Westfall, J.A., Sayyar, K.L. and Bone, J.K., Ultrastructure of neurons and synapses in the tentacle gastrodermis of the sea anemone *Calliactis parasitica*, *Journal of Morphology* **232**:207-217.

1997. Westfall, J.A. and Sayyar, K.L., Ultrastructure of neurons and synapses in the tentacle epidermis of the sea anemone *Calliactis parasitica*, *Journal of Morphology* **231**:207-223.

1995. Westfall, J.A., Sayyar, K.L., Elliot, C.F., and Grimmelikhuijzen, C.J.P., Ultrastructural localization of Antho-RWamides I and II at neuromuscular synapses in the gastrodermis and oral sphincter muscle of the sea anemone *Calliactis parasitica*, *Biological Buletin* **189**: 280-287.

#### **GrantsReceived:**

2007. Faculty Development Travel Grant, University of Arkansas at Monticello, \$900.

2006. Faculty Development Travel Grant, University of Arkansas at Monticello, \$900.

2005. Faculty Research Grant, University of Arkansas at Monticello, \$1,900.

#### **Professional/Honor Societies:**

2015-Present American Meteorological Society

1995-Present Microscopy Society of America

2004-Present Sigma Zeta Honor Society

#### **Other Duties/Certificates of Training:**

2015. Completed 50 hours at the Minority Student Institutions-Reconstructing Earth's Climate History Advanced Professional Development program, Gulf Coast Repository at Texas A&M in College Station, Texas.

2014-2015. Served as a member on the State Science Fair Review Committee at the University of Central Arkansas, Conway, AR.

2007-2014. Served as the Judge Coordinator for the Southeast Arkansas Regional Science Fair hosted at the University of Arkansas at Monticello.

2004-2005. Served as Research Manager for REU chemistry students at the University of Arkansas at Monticello under the direction of Dr. Rose McConnell, Professor of Chemistry which culminated in 7 published abstracts and poster presentations at national scientific meetings. (Abstracts will be furnished upon request)

1994. Received a Certificate of Training in Hazardous Materials Shipping issued by the Department of Public Safety at Kansas State University.

1993. Received Certificate of Training in Laboratory Safety issued by the Department of Public Safety at Kansas State University.

**University of Arkansas at Monticello  
FACULTY VITA**

<b>Name</b>	Gavin	Jared	Martin	Ph.D. Physics
<b>Office Address</b>	School of Mathematical and Natural Sciences / C-23			
<b>Phone</b>	870-460-1364			
<b>Academic Unit/Field</b>	Mathematics and Physics			
<b>Academic Rank</b>	Assistant Professor			

<b>Education</b>				
<u>Institution</u>	<u>Location</u>	<u>Degree</u>	<u>Year</u>	<u>Field of study</u>
Missouri S&T	Rolla, MO	Ph.D./M.S.	2009	Physics
University of Arkansas at Monticello	Monticello, AR	B.S.	2003	Mathematics

**Educational Certifications and Year Received:** none

**Teaching Experience:** Teaching and research positions, including dates  
 University of Arkansas at Monticello - School of Mathematical and Natural Sciences  
 Assistant Professor of Math and Physics / Fall 2012 – Present

University of Arkansas at Monticello – College of Technology – McGehee  
 Workforce Education Math Instructor / Fall 2009 –Spring 2012

Missouri School of Science and Technology  
 Teaching & Research Assistant / Spring 2004 – Spring 2008

**Professional Experience:** Positions (part-time, full-time, temporary and permanent) which relate to your preparations for your current position, not listed in previous section)  
 None

**Courses Taught (at least for the two previous years):**  
 Technical Mathematics – MAT 1203  
 Introductory Algebra – Math 0143  
 Intermediate Algebra – Math 0183  
 College Algebra – Math 1043  
 Elements of Physics – Physics 1003 & Elements of Physics Lab - Physics 1021  
 College Physics I – Physics 2203 & College Physics I Lab – Physics 2231  
 College Physics II – Physics 2213 & College Physics II Lab – Physics 2241  
 University Physics I – Physics 2313

**Publications and Presentations/Scholarly Activities:**

Differential Cross Section for Ionization of Argon by 1keV Positron and Electron Impact, J. Gavin, R. D. DuBois, O. G. de Lucio, presented at XXVIII IPEAC, Lanzhou, China July 2013.

Triply Differential Measurements of Single and Multiple Ionization of Argon by Electron and Positron Impact, J. Gavin, R. D. DuBois, O. G. de Lucio. Currently in preparation for submission to Phys Rev. A.

O. de Lucio, J. Gavin and R.D. DuBois, 2006. "Differential Electron Emission for Single and Multiple Ionization of Argon by 500 eV Positrons", Phys. Rev. Lett. 97, 243201.

R.D. DuBois, A.C.S. Santos, M.A. Thomason, **J. Gavin**, 2005. "Doubly and Triply Differential Ionization Studies using Positrons and Electrons." Nuclear Instr. and Meth B241 19-22.

R.D. DuBois, O.G. de Lucio and **J. Gavin**, 2006. "Differential Ionization Studies for Positron Impact", Brazilian Journal of Physics, vol. 36, no. 2B, 522.

O.G. de Lucio, R.D. DuBois and **J. Gavin**, 2007. "Differential Ionization of Ar by Positron and Electron Impact", Nuclear Inst. and Methods in Physics Research 261, 892-5.

**J. Gavin**, M. Thomason and R.D. DuBois, 2005. "Coincidence Measurements of Scattered Projectiles, Ejected Electrons, and Recoil Ions for 1000 eV Electron Impact on Argon." Presented at DAMOP, Lincoln, NE, May.

**J. Gavin**, M. Thomason and R.D. DuBois, 2005. "Triply Differential Ionization Studies for Electron Impact." Presented at XXIV ICPEAC, Rosario, Argentina, July 20-26.

O. de Lucio, **J. Gavin** and Robert D. DuBois, 2006. "Single and multiple electron-impact ionization of Kr as a function of momentum transfer", presented at 37th Meeting of the Division of Atomic, Molecular and Optical Physics, May 16-20, Knoxville, TN.

**J. Gavin**, O. de Lucio and R. DuBois, 2006. "Triply Differential Single Ionization of Argon by Positron and Electron Impact", presented at 37th Meeting of the Division of Atomic, Molecular and Optical Physics, May 16-20, Knoxville, TN.

**Professional Service** (college, other professional service including collaborative efforts with departments, programs, faculty, and public schools):

Arkansas Academy of Sciences –Presented a poster and judged posters. Spring 2014.

AOK AAPT Conference – Presented paper and poster. – *Cellular Automata*. Fall 2013

Arkansas Academy of Sciences –Presented a poster. Spring 2013.

CASAA Committee – Currently serving Fall 2013 – Present

Judged the Star City Science Fair and UAM Regional Science Fair 2013

VEX Robotics Competition – Star City Middle School – Ruston, LA 2013

**Honors, Prizes, and Awards and Professional Associations:**

American Association of Physics Teachers – Regular Member.

Arkansas Academy of Sciences AAS – Regular Member.

**Ross H. Burrows**  
aka Ross H. Bedros  
(951) 941-7637  
burrows@uamont.edu  
.

**EDUCATION:**

Ph.D. Physics University of California at Riverside, 2008  
M.S. Physics University of California at Riverside, 2004  
B.S. Physics San Jose State University, 2001  
A.S. Engineering Canada College, 1998

**TEACHING EXPERIENCE:**

**Assistant Professor of Physics**

University of Arkansas at Monticello, Monticello, AR  
8/2015-Present

**Instructor**

ITT Technical Institute, San Bernardino, CA  
1/2014-8/2014

SC4730 Environmental Science: study of human impact on our living planet.  
PH2530 Physics: principles of general physics.

**Instructor**

University of Alabama in Huntsville  
Summer 2012

PH112: general physics with calculus covering thermodynamics, electricity and magnetism

**Substitute Instructor**

University of Alabama in Huntsville  
9/2014-present  
2008-2012

Classes on Math Methods in Physics, Computational Methods in Physics, Plasma Physics and graduate level Electricity and Magnetism

**Teaching Assistant**

University of California at Riverside  
2003-2005

Upper division Thermodynamics and Introduction to Astrophysics, lower division General Physics classes and laboratories

**PROFESSIONAL EXPERIENCE:**

**Research Associate II**

Center for Space Plasma and Aeronomic Research (CSPAR)  
University of Alabama in Huntsville  
9/2014-present  
2008-2013

Develop theoretical and computational models for simulating fluid systems and particle acceleration at shocks in collisionless space plasmas using object oriented C++ and Linux OS.

### **Research Assistant**

Institute of Geophysics and Planetary Physics  
University of California at Riverside  
2006-2008

Investigated the properties of shocks in space plasmas from theoretical and computational viewpoints.

Modeled the hydrodynamic evolution and jump conditions of shock waves with reflected particles.

### **Research Assistant**

Physics Department  
San Jose State University, California  
2001-2002

Conducted high-vacuum, cryogenic hysteresis experiments on the properties of magnetic, nanostructure materials. Produced a detailed lab manual on the use of temperature control processors.

### **Foreman**

Hy-Tech Construction  
Belmont, California  
1986-1999

Supervised the construction of fences, decks and other outdoor structures.

### **PUBLICATIONS:**

*A New Hybrid Method*, R.H. Burrows, X. Ao, G.P. Zank, 12<sup>th</sup> Annual International Astrophysics Conference (ASP Conference Series), Volume 484, pp. 8-15 (2014).

*Ion Acoustic Travelling Waves*, G.M. Webb, R.H. Burrows, X. Ao and G.P. Zank, Journal of Plasma Physics, (Jan-2014).

*Shock Surfing at a Two-Fluid Plasma Model*, R.H. Burrows, X. Ao, G.P. Zank, 11<sup>th</sup> Annual International Astrophysics Conference (AIP Conference Series), Volume 1500, pp. 64-73 (2012).

*Solitons in Two-Fluid Plasma*, X. Ao, R.H. Burrows, G.P. Zank, and G.M. Webb, 10<sup>th</sup> Annual International Astrophysics Conference (AIP Conference Series), Volume 1436, pp. 5-11 (2012).

*Pickup Ion Dynamics at the Heliospheric Termination Shock Observed by Voyager 2*, R. H. Burrows, G. P. Zank, G. M. Webb, L. F. Burlaga and N. F. Ness, The Astrophysical Journal, Volume 715 pp.1109-1116 (2010).

*Modified Burges' Equation Resulting from a Hydrodynamic Model of Shock Waves with Reflected Particles*, R.H. Burrows, G.P. Zank, B. Dasgupta, G.M. Webb, 9<sup>th</sup> Annual International Astrophysics Conference (AIP Conference Series), Volume 1302, pp. 142-147 (2010).

*Microstructure of the Heliospheric Termination Shock: Implications for Energetic Neutral Atom*

*Observations*, G.P. Zank, H.J. Heerikhuisen, N.V. Pogorelov, R.H. Burrows, D. McComas, *The Astrophysical Journal*, Volume 708, pp. 1092-1106 (2010).

*Pickup Ion Dynamics at Quasi-perpendicular Shock Waves*, R. H. Burrows, Thesis (Ph.D.) – University of California, Riverside (2008).

*Hydrodynamics of Shock Waves with Reflected Particles: I Rankine-Hugoniot Relations and Stationary Solutions*, B. Dasgupta, R. H. Burrows, G. P. Zank and G. M. Webb, *Physics of Plasmas*, Volume 13, pp. 082112-19 (2006).

*Magnetohydrodynamics of Shock Waves with Reflected Particles: Rankine-Hugoniot Relations*, B. Dasgupta, G.P. Zank, R. H. Bedros, and G.M. Webb, 4<sup>th</sup> Annual IGPP International Astrophysics Conference (AIP Conference Series), Volume 781, pp. 64-71 (2005).

### **SELECTED PRESENTATIONS:**

*Electron Kinetic Scale Simulations*, CSPAR Space Weather Summer Camp, Huntsville AL, (August 2013).

*Toward Multi-scale Plasma Simulations*, 12<sup>th</sup> Annual International Astrophysics Conference, Myrtle Beach, South Carolina, (April 2013).

*Magnetospheric Processes: Reconnection in Space Plasmas*, National Space and Technology Center, Huntsville AL, (July 2012).

*Space Weather Effects Due to Particle Acceleration at Shocks*, Air Force Office of Scientific Research, Space Sciences Program Review, Albuquerque, NM, (June 2011).

*The Case for Shock Surfing*, 9<sup>th</sup> Annual International Astrophysics Conference, Maui, Hawaii, (March 2010).

*Shock Surfing at a Perpendicular Termination Shock*, *Voyagers in the Heliosheath: Observations, Models and Plasma Physics Conference*, Kauai, Hawaii (January 2009).

### **AWARDS:**

- Air Force Office of Scientific Research (AFOSR) Young Investigator Award (2010)
- San Jose State University Dean's Scholar (2000-2001 and 2001-2002)
- San Jose State University Physics Club Scholarship Award (Fall 2000 and Spring 2001)
- Lori Hergert Memorial Re-Entry Scholarship, Canada College (1997)

### **PROFESSIONAL SERVICES:**

- Editor and Organizer for the Proceedings of the 8<sup>th</sup> Annual International Astrophysics Conference, Kona, Hawaii (May 2009).
- Referee for *The Astrophysical Journal*
- Referee for AIP Conference Proceedings
- Proposal Review for the NSF, Division of Atmospheric and Geospace Sciences
- Solicited and moderated weekly, scientific presentations as Chairman of CSPAR colloqu

**University of Arkansas at Monticello**



## FACULTY VITA

Name	Last	First	Middle	Highest Degree
	Serna	Juan	David	Ph.D.
<b>Academic Unit/Field</b>	Mathematics & Science /Physics Professor			
<b>Academic Rank</b>	Associate Professor			

<b>Education</b> (begin with most recent education and include <u>all</u> professional education leading to a degree <u>or</u> professional credential)				
Institution	Location	Degree	Year	Field of study
Univ. of Arkansas	Fayetteville, AR	Ph.D.	2005	Quantum Optics
Univ. of Arkansas	Fayetteville, AR	M.S.	2004	Physics
Univ. de Antioquia	Medellin, Colombia	B.S.	1997	Physics

<b>Teaching Experience:</b> Teaching and research positions, including dates	
2001-2002	Teaching Assistant; University of Arkansas, Fayetteville, AR.
2005	Teaching Assistant; University of Arkansas, Fayetteville, AR.
2005-2011	Assistant Professor of Physics; University of Arkansas at Monticello, Monticello, AR.
2011-2015	Associate Professor of Physics; University of Arkansas at Monticello, Monticello, AR.
2012-2015	UAM Radiation Safety Officer; University of Arkansas at Monticello, Monticello, AR

<b>Professional Experience:</b> Positions (part-time, full-time, temporary and permanent) which relate to your preparations for your current position.	
2005-2011	Assistant Professor of Physics; University of Arkansas at Monticello, Monticello, AR.
2011-present	Associate Professor of Physics; University of Arkansas at Monticello, Monticello, AR.

### Courses Taught (at least for the two previous years):

- College Physics 1 & 2
- University Physics 1 & 2
- College/University/Elements of Physics Lab 1 & 2
- Optics
- Modern Physics
- Introduction to Electronics
- Scientific Computing
- Computational Physics
- Science Teaching Methods in Physics

### Publications and Presentations/Scholarly Activities:

Patrick Snyder, Amitabh Joshi, and Juan D. Serna; Modeling a nanocantilever-based biosensor using stochastically a perturbed harmonic oscillator. *Int. J. Nanosci.* **13** (2014) 1450011

Juan D. Serna and Amitabh Joshi; Visualizing the logistic map with a microcontroller. *Phys. Educ.* **47** (2012) 736–740.

Amitabh Joshi and Juan D. Serna; Refractive index of a transparent liquid measured with a concave mirror. *Phys. Educ.* **47** (2012) 559–562.

U. Pishipati, I. Almakrami, Amitabh Joshi, and Juan D. Serna; Cavity Quantum Electrodynamics of a two-level atom with modulated fields. *Am. J. Phys.* **80** (2012) 612–620.

Juan D. Serna and Amitabh Joshi The center of mass of a soft spring. *College Math. J.* **42** (2011) 389–394.

Joshua Harden, Amitabh Joshi, and Juan D. Serna; Demonstration of double EIT using coupled harmonic oscillators and RLC circuits. *Eur. J. Phys.* **32** (2011) 541–558.

Juan D. Serna and Amitabh Joshi; Studying springs in series using a single spring. *Phys. Educ.* **46** (2011) 33–40.

A. González, J. D. Serna, R. Capote, and G. Avendaño.; Higher Landau levels contribution to the energy of interacting electrons in a quantum dot. *Physica E* **30** (2005) 134–137.

J. D. Serna and J. Mahecha; Study of hydrogenic atom near a rigid wall by means of finite element method. *Phys. Chem. Chem. Phys.* **2** (2000) 4061–4065.

## **Contributed Talks, Posters, Exhibits, and Workshops**

Talk: Bringing the least action principle into introductory physics labs.

Arkansas Academy of Sciences 98th Annual Meeting

Harding University

April 4-5, 2014. Searcy, AR.

Exhibit: "100 Years of Rutherford's Atom Model."

Fred J. Taylor Library and Technology Center

November 7–30, 2011. University of Arkansas at Monticello. Monticello, AR.

Talk: Using an Open Source Programmable Microcontroller to Visualize Chaos.

Arkansas-Oklahoma-Kansas Section Meeting of AAPT

North West Arkansas Community College.

October 14-15, 2011. Bentonville, AR.

Talk: "The Physics of Sound."

Monticello High School

May 27, 2011. Monticello, AR.

Exhibit: "50 Years of the Laser."

Fred J. Taylor Library and Technology Center

November 5–30, 2010. University of Arkansas at Monticello. Monticello, AR.

Poster: "Studying Springs in Series Using a Single Spring."

American Association of Physics Teachers 2010 Summer Meeting

July 2010. Portland, OR.

Talk: "The Physics of Roller Coasters."

Monticello Middle School

March 18, 2010. Monticello, AR.

Talk: "The Physics of Roller Coasters."

Southeast Arkansas Science and Math Alliance

University of Arkansas at Monticello.

September 23, 2008. Monticello, AR.

Workshop: "UAM/ERZ Summer Science Camp."

Workshop for High-School Teachers and Students

University of Arkansas at Monticello.

June 12, 2008. Monticello, AR.

Workshop: "Teacher Leader Cadre (TLC)."

Workshop for Science High-School Teachers

University of Arkansas at Monticello.

March and December, 2007. Monticello, AR.

Talk: "Electricity and Magnetism, and Sound Kits."

Southeast Arkansas Science and Math Alliance

University of Arkansas at Monticello.

April 2006. Monticello, AR.

**Professional Service** (college, other professional service including collaborative efforts with departments, programs, faculty, and public schools):

- UAM Radiation Safety Officer; University of Arkansas at Monticello, Monticello, AR.
- Talks and workshops at local public schools (see previous section).

**Honors, Prizes, and Awards and Professional Associations:**

- 2014 Teacher of the Year Award (runner-up).  
Arkansas Zeta Chapter of Alpha Chi.  
University of Arkansas at Monticello. Monticello, AR.
- 2011 Distinguished Advisor Award.  
University of Arkansas at Monticello, Monticello, AR.
- 2010 University of Arkansas at Monticello Outstanding Faculty Award.  
Monticello-Drew County Chamber of Commerce, Monticello, AR.
- 2006 Rookie of the Year Nominee. Arkansas Zeta Chapter of Alpha Chi.  
University of Arkansas at Monticello. Monticello, AR.

- 2003 Lloyd Ham American Association of Physics Teachers  
Outstanding Teaching Assistant Award  
Department of Physics, University of Arkansas. Fayetteville, AR.
- 2009 Teacher of the Year Award.  
Arkansas Zeta Chapter of Alpha Chi.  
University of Arkansas at Monticello. Monticello, AR.
- 2007 Rookie of the Year Award  
Arkansas Zeta Chapter of Alpha Chi
- American Association of Physics Teachers (AAPT)
- American Physical Society (APS)
- Mathematical Association of America (MAA)
- Society for Industrial and Applied Mathematics (SIAM)
- Arkansas Academy of Science (AAS)

Beta Pi Chapter of Sigma Zeta.