

Curriculum Vitae
Jerry Lin Farris

Department of Biological Sciences Arkansas State University
PO Box 599, State University, Arkansas 72467 870.680.8151 jlfarris@astate.edu

PROFESSIONAL PREPARATION

Arkansas State University, State Univ., Arkansas. B.S., Zoology, 1979
University of Oklahoma Field Biological Station, Kingston, OK. Summer Session in Algal and Field Ecology, 1980
Arkansas State University, State Univ., Arkansas. M.S., Biology, 1981.
Virginia Polytechnic Institute and State University, Blacksburg, Virginia. Ph.D., Zoology, 1986.

APPOINTMENTS

Virginia Polytechnic Institute and State University
Post-doctoral Research Associate in Zoology, 1986
Research Scientist in Zoology, 1987-1990
Visiting Assistant Professor in Biology and Affiliate Faculty Member of the Center for Environmental and Hazardous Materials Studies, 1991-1992.
Arkansas State University
Assistant Professor, Department of Biological Sciences, 1992-1996
Director, Ecotoxicology Research Facility, 1994-2005
Judd Hill Chair of Environmental Biology, 1994-2005
Associate Professor, Department of Biological Sciences, 1997-2001
Professor, Department of Biological Sciences, 2002-2008
Associate Dean, College of Sciences and Mathematics, 2005-2009
University Distinguished Professor of Biology, 2009-present
Affiliated Faculty member, Arkansas Biosciences Institute, 2004-present

PROFESSIONAL AFFILIATIONS

Society of Environmental Toxicology and Chemistry (SETAC), Mid South Regional SETAC, North American Benthological Society, Freshwater Mussel Conservation Society, Sigma Xi, Arkansas Environmental Federation, Phi Kappa Phi, American Association of University Professors, Council of Environmental Deans and Directors

GRANTS AND AWARDS

Farris, J. L., D. S. Cherry, J. Cairns, Jr. and E. P. Smith. American Electric Power Company. 1991 (\$49,600) Selenium sensitivity of biota from Little Scary Creek, West Virginia.

Farris, J. L., D. S. Cherry, R. J. Neves and J. Cairns, Jr. American Electric Power Company. 1991-1992 (\$209,700) Validation of copper concentrations at the Clinch River Plant, Virginia.

Farris, J. L., and D. S. Cherry. American Electric Power Company. 1991 (\$55,800) Toxicity testing of copper and whole effluent from Big Sandy Plant, Kentucky.

Cherry, D. S., J. L. Farris and J. Cairns, Jr. Duquesne Light Company. 1990-1991 (\$93,000) *Corbicula* anti-fouling and molluscicide fate and effect studies regarding nuclear power generation.

Farris, J. L., R. J. Neves and D. S. Cherry. Ecological Specialists, Inc. 1991 (\$6,142) Validation of silt tolerance in juvenile mussels.

Farris, J. L., D. S. Cherry, and J. Neves. American Electric Power Corporation. 1991-1994 (\$265,000) Sources of pollutants influencing point and non-point toxicity to the mussel fauna in the Clinch River drainage system.

Neves, R. J., J. L. Farris and D. S. Cherry. American Electric Power Corporation. 1991-1992 (\$68,000) Propagation of juvenile freshwater mussels at the Clinch River Steam Plant, Carbo, Virginia.

Farris, J. L., R. J. Neves and D. S. Cherry. U. S. Fish and Wildlife Service. 1992-1993 (\$10,900) Cellulolytic enzyme assay analysis on mollusks in the Clinch River, Virginia.

Cherry, D.S., J.R. Lauth, and J.L. Farris. Proctor and Gamble Company. 1992-1993 (\$65,000) Chronic toxicity testing of Foley Mill effluent..

Farris, J. L. U.S. Fish and Wildlife Service. 1993-1994 (\$25,520) Monitoring and database management in the Upper Tennessee River Basin.

Farris, J. L., J. H. VanHassel, R. J. Neves. The Nature Conservancy. 1993-1994 (\$10,000) Biomonitoring for maintenance of unionids: EPA Watershed Protection Approach Demonstration Project in the Upper Tennessee River Basin - Virginia.

Farris, J. L., R. L. Johnson. Arkansas State University, Faculty Research Award. 1993-1994 (\$10,660) Allozyme analysis of freshwater mussels: modeling of genotypic diversity in aquatic ecosystems.

Farris, J. L., K. R. Seeley, and S. Zylstra. U.S. Fish and Wildlife Service. 1994-1995 (\$68,000) Development of ranking systems for water quality and biologic integrity in the Upper Tennessee River Basin.

Farris, J. L. Miami University. 1993-1994 (\$4,060) Evaluation of cellulolytic activity in freshwater mussels for use in resource damage claims.

Farris, J. L. Miami University. 1993-1994 (\$2,320) Use of cellulolytic activity in freshwater mussels to assess the health of Ohio river basin unionids prior to encrustation by zebra mussels.

Farris, J. L. American Electric Power Service Corporation. 1994 (\$17,400) Untreated mine water effects on Ohio River mussels.

Farris, J. L. American Electric Power Service Corporation. 1994-1995 (\$17,400) Evaluation of non-point source pollutants using in-stream indicators of mollusc health.

Farris, J. L. Ouachita River Institute. 1993-1994 (\$4,700) Evaluation of substrate toxicity and cellulase inhibition from mercury contamination.

Farris, J. L. SILO Advisory Council. 1993-1994 (\$2,492) Use of cellulolytic activity in a proposed framework for developing indicators of ecosystem health.

Farris, J.L. City of Jonesboro. 1993-1994 (\$4,490) Effect of pesticides for mosquito control on target and non-target organisms.

Farris, J.L. U.S. Fish and Wildlife Service, Bloomington Field Office, Indiana. 1995 (\$17,000) Use of sediment tests with juvenile mussels in preassessment phase investigations for damaged resources.

Farris, J.L. American Electric Power Service Corporation, Columbus, Ohio. 1995-1997 (\$66,528) Restoration of Unionid mussels to Leading Creek using fish host encystment and media transformation.

Farris, J. L. Weston, Inc. Edison, New Jersey. 1995 (\$10,800) Evaluation of sediment toxicity from sites in Bayou Bonfouca using juvenile mussels.

Farris, J.L. and J.L. Harris. Arkansas Game and Fish Commission. 1995-1998 (\$66,500) Zebra mussel impacts on freshwater mussels in Arkansas.

Farris, J.L. and B.D. Bennett. Arkansas Soil Testing and Research Laboratory and US EPA. 1995-1998 (\$168,400) Demonstration of cotton production BMP impact on the soil and water resources of the Arkansas Delta.

Farris, J.L. Chisenhall, Nestrud and Julian. 1995-1996 (\$15,000) Evaluation and characterization of a nickel dominated discharge and its effect on a treatment plant effluent.

Farris, J.L. and R.S. Grippo. Ecological Specialists, Inc. 1995-1996 (\$23,690) Toxicity assessment of sediment and water related to the ecological characterization of Weldon Spring.

Farris, J.L. Ecological Specialists, Inc. 1996 (\$31,973) Toxicity assessment of sediment and water related to the Weldon Spring Remedial Action Project: Option Period Characterization.

Farris, J.L. and Jon Pierce. SILO Advisory Council Grant. 1996 (\$3,600) Limnological analysis of an intensive-use reservoir.

Farris, J.L. and C.D. Milam. Shell Exporters Association. 1996-1997 (\$23,220) Relating sediment and habitat conditions to historical impact on resident mussel communities in Kentucky Lake.

Farris, J.L., T.J. Naimo and C.D. Milam. U.S. Fish and Wildlife Service. 1997 (\$6,091) Assessment of condition indices as indicators of mussel damage in response to a coal-fine spill.

McGhee, R., A. Hadar, J. Farris and R. Grippo. Mideast Travel Award. 1996-1997 (\$32,000) Collaborative environmental research for comparative Delta studies.

Farris, J.L. Arkansas State University, Faculty Research Award. 1997-1998 (\$5,778) Cellulolytic activity as bioeffect endpoint in mussels to reduce uncertainty in the assessment of ecological risks.

Farris, J.L. and C.D. Milam. American Electric Power Service Corporation. 1998 (\$26,508) Propagation and establishment of juvenile mussels in Leading Creek using fish host encystment and media transformation.

Grippo, R., J. Farris, B. Bennett and R. Cox. U.S. Corps of Engineers. 1997-1998 (\$46,820) Environmental assessment for feasibility study of harbor expansions for Pemiscot County and New Madrid, MO on the Mississippi River.

Farris, J.L. ,J.L. Harris, and C.D. Milam. Arkansas Game and Fish Commission. 1998-1999 (\$20,500) Zebra mussel impacts on freshwater mussels in Arkansas.

Farris, J.L. USDA, Agricultural Research Service Mid-South Area. 1998-1999 (\$124,000)

- Measurement of impairment and the effects of contaminant loading and reduction in conservation and management of Deltaic watersheds.
- Farris, J.L. and C.D. Milam. U.S. Fish and Wildlife Service. 1999-2000 (\$8,910) Impacts on unionid populations in the Middlefork Holston River, VA: biomarker responses measured in *Lexingtonia dolabelloides* following a mussel die-off.
- Farris, J.L., J.L. Harris and C.D. Milam. U.S. Department of the Interior, Fish and Wildlife Service. 2000-2002 (\$40,000) Life history and population biology of the endangered speckled pocketbook.
- Harris, J.L. and J.L. Farris. USDA Forest Service, Ouachita National Forest. 2000-2002 \$30,000 Mussel survey of the Fourche and Petit Jean rivers in Arkansas.
- Stephens, W. W. and J. L. Farris. Catfish Promotion Board. 2001-2002 \$8,000 Instream community assessment of aquaculture effluents,
- Farris, J.L. and C.D. Milam. City, Water and Light, Inc. 2001-2002 (\$33,438) Evaluation of streams receiving treated municipal effluent.
- Farris, J.L. and C.D. Milam. U.S. Dept. of Agriculture Forest Service. 2001-2002 (\$15,500) GIS mussel database for Ozark and St. Francis National Forests.
- Farris, J.L., C.D. Milam and J.L. Harris. Arkansas Game and Fish Commission. 2001-2002 (\$18,106) GIS database of Arkansas mussels (NB09).
- Farris, J.L. US Fish and Wildlife Service. 2001-2003 (\$15,000) Life history of the Ouachita Rock Pocketbook (*Arkansia wheeleri*).
- Farris, J.L., J.L. Harris, A.D. Christian, W.R. Hoeh, R.L. Johnson, M. Gordon and C.D. Milam. Arkansas Game and Fish Commission. 2001-2004 (\$58,935) Species limits and phylogeography of Lampsilinae (Bivalvia; Unionoida) in Arkansas with emphasis on species of *Lampsilis*.
- Farris, J.L. Potesta and Associates. 2001-2003 (\$145,699) Assessment of fish community responses to a coal slurry spill in the Tugfork River in Kerma, West Virginia.
- Milam, C.D., J.L. Farris, and J.L. Harris. 2002. US Army Corps of Engineers, Memphis District.(\$7,800) Development of an electronic key for Arkansas freshwater mussel populations.
- Farris, J.L. Combined Various Regional Industries and Municipalities. 1996-2004 (\$371,644) Evaluation of point and non-point impacts on receiving stream communities predicted by toxicity and impairment testing.
- Farris, J.L. Parsons Engineering Science, Inc. 2002 (\$26,448) Bioassessment of water and sediment quality on Robinson Military Training Area.
- Farris, J.L., A.D. Christian and J.L. Harris. US Fish and Wildlife Service. 2002-2004 (\$30,000) Life history and population biology research on the threatened Arkansas fatmucket (*Lampsilis powelli*) and the special concern Ouachita creekshell (*Villosa arkansasensis*).
- Farris, J.L. US Fish and Wildlife Service. 2002-2003 (\$33,000) Field validation of buffer zones to protect the Fat pocketbook.

Farris, J.L. Parsons Engineering Science, Inc. 2002-2003 (\$6,496) Fort Chaffee Maneuver Training Center Scaleshell mussel survey.

Farris, J.L. USDI Fish and Wildlife Service. 2002-2003 (\$43,560) Polynuclear aromatic hydrocarbon concentrations in sediments and potential impacts to benthic and fish communities at the Felsenthal National Wildlife Refuge.

Christian, A.J. and J.L. Farris US Dept of Agriculture Forest Service. 2002-2003 (\$20,000) Challenge Cost Share Agreement for life history and population biology research on the threatened Arkansas fatmucket (*Lampsilis powellii*) and the special concern Ouachita creekshell (*Villosa arkansasensis*).

Grippo, R.C. and J.L. Farris . USDA. 2002-2004 (\$246,000) Fate and effect of the aquaculture therapeutant potassium permanganate.

Hannigan, R.E. and J.L. Farris. National Science Foundation. 2003-2006 (\$262,350) REU Site: R.I.S.E. – Research internships in science of the environment at Arkansas State University.

Hannigan, R.E. and J.L. Farris. National Science Foundation. 2003-2005 (\$163,159) Linkages between the chemical weathering of black shales and metal contamination in aquatic systems.

Hannigan, R.E., J.L. Farris, J. Russ, Roger Buchanan. National Science Foundation 2003-2007 (\$723,665) Assessing environmental life histories of freshwater fish: applications of otolith microchemistry.

Risch, T. and J.L. Farris. Arkansas Bioscience Institute. 2003-2004 (\$104,819) Assessing the benefits of genetically modified crops: Using small mammal models.

Risch, T.S., M. Srivatsan, and J. L. Farris. Arkansas Biological Institute. 2004-2005 (\$75,000) Assessing the benefits of genetically modified crops: Using small mammal models.

Farris, J.L. and A. Christian. 2003-2005. (\$50,000). US Fish and Wildlife Service Interagency agreement. Life history and population biology research on the threatened Arkansas fatmucket (*Lampsilis powellii*) and the special concern Ouachita creekshell (*Villosa arkansasensis*).

Christian, A., J.L. Farris. Arkansas Highway and Transportation Department. 2004-2008 (\$175,000) Habitat restoration plan and programmatic biological assessment for *Potamilus capax*.

Farris, J.L. U.S. Fish and Wildlife Service. 2004-2006 (\$17,000) Identifying potential fish hosts of the western fanshell (*Cyprogenia aberti*).

Farris, J.L. US Department of Agriculture. 1998-2007 (\$974,503) Agricultural Research Service, Mid-South Area. Edge of field ecosystems for water quality improvement.

Farris, J.L. Potesta and Associates. 2001-2006 (\$217,430) Assessment of fish community responses to a coal slurry spill in the Tugfork River in Kerma, West Virginia.

Farris, J.L., Cols. Green S., Bouldin, J., Phillips, G. USEPA Star Grant. 2006-2009 (\$193,400) Delta Center for Agricultural Water Use.

Green, S., Farris J.L. Arkansas Natural Resources Commission. 2006-2008 (\$19,375) Characterization of agricultural runoff for nutrient reduction associated with ProAgri[™] treatment of poultry litter added to soils.

Farris, J.L. Entergy. 2007-2008 (\$25,000) Assessing the environmental impacts of the dust suppressant acidulated soybean soapstock, an agricultural bi-product in aquatic systems.

Christian, A., J.L. Farris and J.L. Harris. Arkansas Game and Fish Commission. 2007-2008. (\$28,060) Life history research on the special concern southern hickorynut, *Obovaria jacksoniana* (Frierson, 1912).

Farris, J.L. Arkansas Biosciences Institute. 2008-2009 (\$75,000) Assessment of vegetative regulatory network performance at drainage scales.

Farris, J.L., Kroger R, Moore, MT. City of Jonesboro. 2009-2010 (\$24,494) Vegetation management assessment.

Farris, J.L. USDA. 2009-2013 (\$132,980) Contaminant removal by edge-of-field wetlands; Specific Cooperative Agreement USDA No 58-6408-9-351

Kroger, R., Farris, J.L., and Moore, M.T. Mississippi Alabama Sea Grant Consortium 2010-2012 (\$143,800) Decreasing nitrate-N loads to coastal ecosystems with innovative drainage management strategies in agricultural landscapes.

Farris, J.L. Arkansas Science and Technology Authority. 2010-2013 (\$100,000) Center for Efficient and Sustainable Use of Resources (CESUR).

Farris, J.L. USDA ARS 2013-2018 (\$108,206) Contaminant removal by edge-of-field wetlands, Service Contract Agreement.

Farris, J.L. and M. Reba. USDA NRCS 2013-2016 (\$150,000) Tailwater recovery characterization-AR Component Conservation Innovation Grant.

Farris, J.L. and M. Reba. US Fish and Wildlife Service 2013-2014 (\$18,240) Water monitoring and transported sediment characterization on National Wildlife Refuges-Region 4; Big Lake National Wildlife Refuge (BL NWR).

Farris, J.L. USDA ARS 2017-2022 (\$147,778) Novel edge-of-field practices for nutrient and pesticide runoff mitigation, Service Contract Agreement.

PROFESSIONAL ACTIVITIES

Served as consulting aquatic ecologist, benthic ecologist or ecotoxicologist for the following:

Hercules Inc
 Celanese Corporation
 Consumers Power Company
 Procter and Gamble Environmental Safety Department
 Borg-Warner Chemicals Corporation
 American Electric Power Service Corporation, Columbus, OH
 American Electric Power Service Corporation's Clinch River Plant
 Ecological Analysts
 Utilities Water Act Group (UWAG)

Union Carbide Corporation
IBM Corporation
Wisconsin Paper Council
Bowater Southern Paper Company
International Joint Commission
International Paper Company
Hoechst Celanese, Rock Hill, SC and Narrows, VA
Virginia Fibers Corporation
Central Virginia Laboratories and Consultants
Maine Paper Council
Duquesne Light Company, Pittsburgh, PA
Biological Monitoring, Inc, Blacksburg, VA
Farr Company, Jonesboro, AR
City of Jonesboro, Jonesboro, Arkansas
Weyerhaeuser
Boston-Dana, Paragould, AR
EVS Environment Consultants
R&R Environmental Engineering
Kuwait University
Tennessee Department of Transportation
East Tennessee State University
HydroQual, Inc
City Water and Light, Jonesboro, AR
U.S. Army Corps of Engineers, Memphis District
US Dept of Justice
Jones, Day, Reavis and Pogue, Toledo, OH
Wichita State University
Texas State University, San Marcos
Middle Tennessee State University
Parsons Engineering Science, Inc
Cargill Meat Solutions Corp.
Potesta and Assoc.
Engineering Environmental Management, Inglewood CO
Ridolphi Inc., Seattle, WA
PBS&J Environmental Toxicology
HNTB Corp. KC, MO
E²M Engineering-Environmental Management, Inc
PetroHawk Chemical
Thompson and Knight, LLP
Chisenhall, Nestrud & Julian, P.A., Little Rock, AR
EnSafe, Memphis, TN
Eastern Research Group, Inc.

POSITIONS HELD

Thermogas Corporation - Accounting Department, Little Rock, Arkansas, 1974
Maumelle Newtown, Inc. - Construction and Design Department, Maumelle, Arkansas, 1975-1976
Malone and Hyde - Accounting and Wholesale Inventory, Memphis, Tennessee, 1976
Franklin Electric Corp. - Maintenance Division, Jacksonville, Arkansas, 1977-1978
Garrison Motor Freight - Terminal Assistant, Little Rock, Arkansas, 1979-1980
Arkansas State University (Biology Department): Graduate Teaching Assistant, 1980-1981

Virginia Polytechnic Institute and State University (Biology Department):

- Graduate Teaching Assistant - Aquatic Ecology, General Biology, Principles of Biology, Honors Laboratory, 1982-1984. Duties included lecture and exam preparation, laboratory supervision and assignment of grades.
- Graduate Teaching Associate, 1983-1984. Duties include scheduling and supervision of 30 plus Graduate Teaching Assistants, conducting weekly lab training sessions for the GTAs, modifying lab exercises as appropriate and acting as liaison between the staff and laboratory technicians.
- Graduate Research Assistant, 1984-1986. Responsible for ongoing research being conducted at the Glen Lyn Power Plant field site and laboratory bioassays conducted at the University Center for Environmental Studies Ecosystem Simulation Laboratory.
- Post-doctoral Research Associate in Zoology, 1986. Responsible for on-site field research conducted at the Glen Lyn Power Plant laboratory and artificial streams; also for design, development and construction of the field laboratory and artificial stream system at the Clinch River Power Plant, Carbo, Virginia. Duties included supervision of water chemistry for three laboratories, further development of cellulolytic monitoring for in-stream testing, and culture and maintenance of *Ceriodaphnia* and algal stocks.
- Research Scientist in Zoology, 1987-1990. Responsible for ongoing research at the Clinch River Plant field laboratory and benthic monitoring programs in four rivers in Virginia and Tennessee. Duties included scheduling and supervision of graduate students and technicians, acting as liaison between industry personnel and researchers, as well as generation and analysis of acute and chronic toxicity and impairment tests at the environmental Simulation Laboratory and two laboratories within the Virginia Tech Biology Department.
- Visiting Assistant Professor in Biology and Affiliate Faculty Member of the Center for Environmental and Hazardous Materials Studies, 1991-1992. Manager of the Center's Ecosystem Simulation Laboratory included responsibility for supervision of graduate students and technicians as well as implementation of all quality assurance/quality control protocol for research activities. As Visiting Professor duties included serving as committee member or co-chair on student committees in Biology, Fisheries and Wildlife and the UCE&HMS. Grants were conducted in both the Department of Biology and the UCE&HMS.

Arkansas State University:

- University Distinguished Professor of Biology, and affiliated faculty member Arkansas Biosciences Institute (2009-present)
- Associate Dean, College of Sciences and Mathematics (2005-2009)
- Director, Graduate Program in Environmental Sciences (1996-2005)
- Professor, Department of Biological Sciences (2002-2008)
- Associate Professor, Department of Biological Sciences (1996-2001)
- Assistant Professor, Department of Biological Sciences (1992-1996)
- Director of the Ecotoxicology Research Facility, Responsibilities include directing graduate students and technicians involved with ongoing research, securing research grants, teaching Ecology and Ecology field laboratory, Aquatic Ecotoxicology, Topical Seminar and design, management and equipping two certified toxicity laboratories (1996-2005)
- Chairholder, Judd Hill Chair of Environmental Biology, College of Arts and Sciences, Arkansas State University (1996-2005)

Graduate Faculty, Adjunct Appointments:

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|---|-----------|
| Virginia Tech | 1990-1997 |
| East Tennessee State University | 1992-1998 |
| University of Mississippi | 1996-2001 |
| University of Memphis | 2008-2015 |
| Arkansas Biosciences Institute, ASU Jonesboro | 2005-2015 |

POSTDOCTORAL APPOINTMENTS DIRECTED *and current positions:*

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|---------------------|------------|---|
| Jonathan D. Maul | 2004-2006, | Ecotoxicologist/Environmental Safety Syngenta, Greensboro, NC |
| William W. Stephens | 2004-2005, | Environmental Resources Management, Houston, TX |
| Alan D. Christian | 2001-2002, | Associate Professor, UMass Boston |
| Jagruiti P. Gandhi | 2001-2002, | QC Director at Raffaello Research Labs, Los Angeles, CA |
| Matthew T. Moore | 1999-2000, | Research Ecologist, USDA ARS National Sedimentation Lab |

DIRECTED DISSERTATIONS AND THESES

Joseph R. Bidwell (Ph. D., 1993) Department of Biology, Virginia Tech, Physiological thresholds of the Asiatic clam and comparisons of impairment levels in aquatic organisms, Co-major advisor with D.S. Cherry.

Donna K. Reed (Ph. D., 1993) Department of Biology, Virginia Tech, Measured effects in Clinch River snail communities from power plant discharges, Co-major advisor with D.S. Cherry.

Lewis C. Hunt (M.S., Biology in 1996) Department of Biological Sciences, Arkansas State University. Evaluation of poultry litter and its associated effects on the wood frog (*Rana sylvatica*) in the Ozark Mountains of Arkansas.

Cristin D. Milam (M.S., Biology in 1996) Department of Biological Sciences, Arkansas State University. Relating threshold responses of *Corbicula fluminea* to assess damage in resident mussel populations of the Ohio River basin.

Matt Moore (M.S., Biology in 1996) Department of Biological Sciences, Arkansas State University. Dynamics of propanil conversion to noneffective metabolites and their relation to biological integrity in agricultural ecosystems of Northeast Arkansas.

Margaret L. Barfield (M.S., Biology in 1997) Department of Biological Sciences, Arkansas State University. Comparison of responses using two biomarkers on freshwater molluscs exposed to cadmium.

Andrew A. Beall (M.S., Biology in 1997) Department of Biological Sciences, Arkansas State University. Perception of water quality and aesthetic value of Arkansas deltaic waterscapes and their relationship to bioassessments.

Erik L. Winchester (M.S., Biology in 1997) Department of Biological Sciences, Arkansas State University. Application of ChE activity as a biomarker for monitoring pesticide exposure to freshwater mussels.

Sarah A. Clem (M.S. in 1998) Department of Biological Sciences, Arkansas State University. Complexities in testing early lifestage responses of freshwater mussels to metals and contaminated sediments.

Jon R. Pierce (M.S., Biology in 2000) Department of Biological Sciences, Arkansas State University. Vitellogenin induction in the Red-eared Slider turtle, *Trachemys scripta*, as a biomarker for endocrine disruption.

Tammy V. Ash (M.S., Biology In 2001) Department of Biological Sciences, Arkansas State University. An assessment of the 303D-listed Strawberry River, Arkansas, with resulting management implications.

Richard H. Rauschenberger (M.S., Biology in 2001) Department of Biological Sciences,

- Arkansas State University. Development and viability of alligator snapping turtle, *Macrolemys temminckii*, eggs, embryos, and hatchlings incubated in soils with different pesticide risks. (Co-major advisor with S.E. Trauth).
- Lora L. Harding (M.S., Biology in 2001) Department of Biological Sciences, Arkansas State University. Assessment of instream conditions for two deltaic streams receiving treated municipal effluent in Northeast Arkansas.
- David L. Feldman (M.S., Biology in 2002) Department of Biological Sciences, Arkansas State University. Characterization of macroinvertebrate communities and the conditions that define agricultural drainage ditches.
- Rebecca Winterringer (M.S., Biology in 2003) Department of Biological Sciences, Arkansas State University. Population dynamics and reproductive patterns of the federally endangered freshwater mussel, *Lampsilis streckeri* (Frierson 1927).
- Nova D. Goosby (M.A., Biology in 2004) Department of Biological Sciences, Arkansas State University. The effect of diallyl sulfide in pancreatic cancer chemoprevention- beneficial or adverse?
- Sonya Baker (M.A., Biology in 2004) Department of Biological Sciences, Arkansas State University. Chemopreventive effects of resveratrol on pancreatic tumor cells.
- Jonathan D. Maul (Ph.D., 2004) Environmental Sciences Program, Arkansas State University. Examination and monitoring of ecological and contaminant stressors using vertebrate and invertebrate models.
- William W. Stephens (Ph.D., 2004) Environmental Sciences Program, Arkansas State University. Characterization and impact assessment of aquaculture effluents on wadeable drainages in the deltas of the Lower Mississippi River Valley.
- Jennifer L. Bouldin (Ph.D., 2004) Environmental Sciences Program, Arkansas State University. Interaction of agricultural runoff with vegetated aquatic systems to reduce potential toxicity.
- Mary Scott (M.S., 2004) Department of Biological Sciences, Arkansas State University. Life history and population biology of the Arkansas Fatmucket, *Lampsilis powellii* (Lea, 1852).
- Shannon Davis (M.S., 2005) Environmental Sciences Program, Arkansas State University. The acute toxicity of Weedar 64 (2,4-D) in field and laboratory exposures.
- Sheryl Greenway (M.S., 2005) Environmental Sciences Program, Arkansas State University. Establishing conventional species sensitivity data for caffeine as an emerging contaminant posing risk to aquatic environments.
- Stephen Rice (M.S., 2005) Environmental Sciences Program, Arkansas State University. Development of ranking systems for water quality and biologic integrity in the UpperTennessee River Basin.
- Ashley McBride Wren, (M.A., 2006) Department of Biological Sciences, Arkansas State University. Freshwater mussel response to various flow conditions.
- George M. Ogendi (Ph.D., 2006) Environmental Sciences Program, Arkansas State University. Weathering of black shale and its impacts on surface water and sediment quality, and aquatic organisms. Co-major advisor with R. Hannigan

- Elizabeth A. Ashcraft (M.S., 2006) Department of Biological Sciences, Arkansas State University. Assessment of relic valve condition to estimate time since mortality in Unionid bivalves.
- Brent L. Walker (M.S., 2006) Department of Biological Sciences, Arkansas State University. Characterization and biomonitored responses to measured turbidity in the L'Anguille River, Arkansas.
- Joshua Seagraves (M.S., 2006) Department of Biological Sciences, Arkansas State University. The reproductive biology and habitat characterization of the endangered Ouachita rock pocketbook, *Arkansia wheeleri*, (Ortmann and Walker, 1912).
- Traci C. Hudson (M.S., 2007) Environmental Sciences Program, Arkansas State University. Employing biomonitoring to assess stream conditions of Fourche Creek, Little Rock, Arkansas in an urbanized watershed.
- Nikki Enger-Luster (M.A., 2007-) Environmental Sciences Program, Arkansas State University. The effects of culture and maintenance of trout chow preparation on the test organism, *Ceriodaphnia dubia*.
- Mathangi Gopalan (M.S., 2007) Environmental Sciences Program, Arkansas State University. Assessing the toxicological impacts of a dust suppressant using laboratory biomonitoring.
- P. Sharon Wren (M.S., 2008) Environmental Sciences Program, Arkansas State University. The spinach project with the East Arkansas Resource and Development Council.
- Sheryl Greenway (M.S., 2010) Department of Biological Sciences, Arkansas State University. Effects of fluidized gas desulfurization (FGD) gypsum on non-target freshwater and sediment dwelling organisms
- Finis William Osier (M.S., 2011) Environmental Sciences Program, Arkansas State University. A cost benefit analysis case study of the renewable energy technology programs in distance and classroom settings.
- Oluwayinka O. Iseyemi (Ph.D., 2015) Environmental Sciences Program, Arkansas State University. Effectiveness of agricultural drainage systems on contaminant mitigation: The influence of landscape properties.
- Lisa Ellington (Ph.D., 2016) Environmental Sciences Program, Arkansas State University. Nutrient reduction design for sustainable municipal wastewater treatment.
- Traci C. Hudson (Ph.D., 2016) Environmental Sciences Program, Arkansas State University. Assessing aquatic system metabolism response to disturbance.
- LeeVi Haas (M.S., 2017) Department of Biological Sciences, Arkansas State University. Water quality characteristics of reservoir tailwater recovery systems associated with agriculture production in Northeast Arkansas.
- Ethan Leonard (M.S., 2017) Department of Biological Sciences, Arkansas State University. Water quality characterization of a tailwater recovery system associated with row crop agricultural production.
- Robert R. Clark (M.S., 2021) Environmental Sciences Program, Arkansas State University. Promoting sustainable stormwater management on the campus of Arkansas State University.

Current students directed:

Geoffrey Payne, M.S. candidate in 2016

Undergraduate honors advisees:

Richard W. Cole (B.S. Honors thesis, 1995) Department of Biological Sciences, Arkansas State University. Differentiation of copper uptake from sediment or overlying water by the Asian clam, *Corbicula fluminea*, and the modification of sediment characters in a 30-day artificial stream test.

Jon L. Pierce (B.S Honors thesis, 1996) Department of Biological Sciences, Arkansas State University. Limnology and bioassessment of an intensive-use agricultural reservoir in NE Arkansas.

Melissa McDade (B.S. Honors thesis, 1998) Department of Biological Sciences, Arkansas State University. Determination of Unionid (*Amblema plicata*) condition in short-term refugia at the Mammoth Spring National Fish Hatchery.

Scott Treece (B.S. Honors thesis, 2013) Department of Biological Sciences, Arkansas State University. Spatial distribution of nutrients and Microcystin-LR in reservoirs and recreational lakes of Northeast Arkansas.

Geoffrey Payne (B.S. Honors thesis, 2015) Department of Biological Sciences, Arkansas State University. Characterization of sedimentation and its impacts at Big Lake National Wildlife Refuge, Manila, AR.

Service on Graduate Student Thesis and Dissertation Advisory Committees:

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|-----------------|------|-----------------------|------------------------------------|
| M.C. Hove | 1990 | Virginia Tech, | MS Fisheries and Wildlife Sciences |
| L.T. Wolcott | 1990 | Virginia Tech, | MS Fisheries and Wildlife Sciences |
| L.M. Rifici, | 1990 | Virginia Tech, | MS Zoology |
| P.J. Jacobson | 1990 | Virginia Tech, | MS Zoology |
| M.T. McCann | 1992 | Virginia Tech, | MS Fisheries and Wildlife Sciences |
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| G.W. Church | 1997 | Virginia Tech, | PhD Zoology |
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| Jacob Dorman | Arkansas State University | Grant funding |
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PUBLICATIONS

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- Reash, R. J., J. L. Farris and M. G. Dobbs. 1991. Derivation of site-specific copper and selenium criteria in a Kentucky stream receiving fly ash discharge. Ohio River Consortium, Columbus, Ohio.

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- Farris, J. L., Steve O. Rice, Kenneth R. Seeley, and Steven Zylstra. 1994. Bioassessment studies of the Upper Tennessee River Basin Initiative in relation to declining mussel populations, Society of Environmental Toxicology and Chemistry annual meeting, Denver, Colorado.
- Hunt, L. C. and J. L. Farris. 1994. Ecotoxicology and risk assessment of the wood frog (*Rana sylvatica*) in the Ozark Mountains of Arkansas: Effects of nonpoint runoff, Society of Environmental Toxicology and Chemistry annual meeting, Denver, Colorado.
- Farris, J. L. 1994. Criteria modification involving sediment criteria, Water Regulations Update Seminar, The Arkansas Environmental Federation annual meeting. Little Rock, Arkansas.
- Farris, J. L., K. R. Seeley and S. O. Rice. 1994. Influence of sediment metals partitioning on toxicity test results and in-situ bivalve monitoring, North American Benthological Society Annual meeting. Orlando, Florida.
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- Milam, C.D., J.L. Farris, J.D. Wilhite and L.A. Olson. 1994. Laboratory and field comparisons of mosquito control applications using biomonitoring on non-target organisms, The Arkansas Academy of Science annual meeting, Jonesboro, Arkansas.
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- Clem, Sarah A., M.L. Barfield, and J.L. Farris. 1995. Responses of *Utterbackia imbecillis* early life stages to copper (transformation method comparisons), Upper Mississippi River Conservation Committee, Conservation and Management Meeting, St. Louis, Missouri.
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- Farris, J.L., C.D. Milam and M. L. Barfield. 1996. Development of metrics for monitoring instream unionid condition, Arkansas Water Resources Research Conference, Fayetteville, Arkansas.
- Barfield, M.L., J.L. Farris and M.L. Black. 1997. Suborganismal responses of metal accumulation, cellulolytic activity and DNA double strand breakage in freshwater bivalves. Biomarker Symposium, American Society of Testing Materials, Atlanta, Georgia.
- Pierce, J.R. and J.L. Farris. 1997. The limnological analysis of an irrigation reservoir in Poinsett County, Arkansas, American Water Resources Association Conference, Long Beach, California.
- Christian, A.D., W.R. Posey II, P.J. Rust., J.L. Farris, J.L. Harris, and G.L. Harp. 1997. Growth curves of three species of commercially harvested freshwater bivalves (Unionidae) in Arkansas. 45th Annual Meeting of the North American Benthological Society, San Marcos, TX.
- Grippe, R.S. and J.L. Farris. 1997. Environmental concerns in Western Asia: Suggestions for the future role of SETAC in Pakistan and India, Society of Environmental Toxicology and Chemistry Annual Meeting, San Francisco, California.
- Knight, J.T., C. Kuyper, J.L. Farris and C.D. Milam. 1997. Management alternatives for mercury remediation, Society of Environmental Toxicology and Chemistry Annual Meeting, San Francisco, California.
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- Pierce, J.R., E.L. Winchester, M.T. Moore, C.D. Milam and J.L. Farris. 1997. Augmenting toxicity point estimates for propanil by establishing exposure-response curves, Society of Environmental Toxicology and Chemistry Annual Meeting, San Francisco, California.
- Milam, C.D., J.L. Farris, C. Davidson and J. R. Pierce. 1997. Relating sediment and physiological conditions to historical impacts on resident mussel communities in Kentucky Lake, Society of Environmental Toxicology and Chemistry Annual Meeting, San Francisco, California.
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- Milam, C.D., J.L. Farris, J.F. Dwyer, and D.K. Hardesty. 1998. Comparison of Acute Toxicity

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- Farris, J.L., C.D. Milam and J.L. Harris. 1998. Relocation and subsequent evaluation of condition for adult mussel populations relocated to hatchery refugia, Conservation, Captive Care, and Propagation Symposium, Columbus, Ohio.
- Milam, C.D., J.L. Farris, M.L. Barfield, J.H. Van Hassel and L.A. Yocum. 1998. Reintroduction of native freshwater mussels into a recovering stream using both in vivo and in vitro propagation techniques. Conservation, Captive Care, and Propagation Symposium, Columbus, Ohio.
- Milam, C.D., J.L. Farris, J.T. Knight, F. Buzen and J.F. Nix. 1998. In stream monitoring of sediments and water in the lower Ouachita river for site impact to aquatic biota. Arkansas Academy of Sciences Meeting, Little Rock, Arkansas.
- Hayes, W.A., J.R. Pierce, J.L. Farris and A.A. Grippo. 1998. Vitellogenin purification from the Slider turtle, *Trachemys scripta*. Arkansas Academy of Sciences Meeting, Little Rock, Arkansas.
- Scheuerman, P.R., J.L. Farris, D.S. Cherry, R.J. Currie, C.D. Milam, J.D. Napier. 1999. Roadway construction effects on South Indian Creek and tributaries, Erwin, TN to the North Carolina border. Society of Environmental Toxicology and Chemistry Annual Meeting, Philadelphia, PA.
- Bennett, E.R., M.T. Moore, S. Smith, Jr., C.M. Cooper, F.D. Shields, Jr., J.L. Farris, C.D. Milam. 1999. Pesticide fate in agricultural drainage ditches: a case study of mitigation. Society of Environmental Toxicology and Chemistry Annual Meeting, Philadelphia, PA.
- Farris J.L., C.D. Milam, E.R. Bennett, M.T. Moore, S. Smith, Jr., C.M. Cooper, F.D. Shields, Jr. 1999. Evaluating toxicity of atrazine and I-cyhalothrin amendments to agricultural ditch mesocosms. Society of Environmental Toxicology and Chemistry Annual Meeting, Philadelphia, PA.
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- M.T. Moore, E.R. Bennett, S. Smith, Jr., C.M. Cooper, F.D. Shields, Jr., C.D. Milam and J.L. Farris. 1999. Transport and fate of atrazine and I-cyhalothrin in agricultural drainage ditches: a case study of mitigation. Arkansas Soil and Water Education Conference, Jonesboro, AR.
- Farris J.L., C.D. Milam, E.R. Bennett, M.T. Moore, S. Smith, Jr., C.M. Cooper, F.D. Shields, Jr. 1999. Evaluating toxicity of atrazine and I-cyhalothrin amendments to agricultural ditch mesocosms. Arkansas Soil and Water Education Conference, Jonesboro, AR.
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- Cope, W.G. and J.L. Farris. 1999. Conceptual framework for assessing the effects of contaminants on unionid mussels. Guidelines and techniques for freshwater unionids. Symposium of the Freshwater Mollusk Conservation Society, Chattanooga, TN.
- Naimo, T.J., W.G. Cope, E.M. Monroe, J.L. Farris and C.D. Milam. 1999. The effects of diet and

- Holding time on survival and condition of fingernail clams *Musculium transversum*. Guidelines and techniques for freshwater unionids. Symposium of the Freshwater Mollusk Conservation Society, Chattanooga, TN.
- Harris, J.L., A.D. Christian, J.L. Farris and C.D. Milam. 1999. Restoration of freshwater mussel communities in riverine ecosystems of the Southeastern United States. Southern Bottomland Hardwoods Conference, Memphis, TN.
- Farris, J.L., C.D. Milam, T.J. Newton, E.M. Monroe, J.D. Maul, and T.L. Chapman. 2000. Impacts on unionid populations in the Middlefork Holston River: biomarker responses following a mussel die-off. Society of Environmental Toxicology and Chemistry 21st Annual Meeting, Nashville, TN.
- Milam, C.D., J.L. Farris, M. Moore, S. Smith, Jr., and C. Cooper. 2000. Understanding the structure and function of drainage ditches in Northeast Arkansas. Arkansas Soil and Water Education Conference, Jonesboro, Arkansas.
- Cooper, C.M., M.T. Moore, E.R. Bennett, S. Smith, Jr., and J.L. Farris. 2000. Alternative environmental benefits of agricultural drainage ditches. SIL Conference, Australia.
- Maier, K.J., J.W. Grubaugh, L. Gipson, S.T. Nawrocki, C.D. Milam, and J.L. Farris. 2000. Assessment of the biotic integrity and ambient toxicity of McKellar Lake, 1973-1999. Society of Environmental Toxicology and Chemistry Annual Meeting, Nashville, TN.
- Moore, M.T., C.M. Cooper, R.R. Bennett, S. Smith, Jr., and J.L. Farris. 2000. Reinventing the ditch: Using drainage channels for agricultural runoff remediation. Society of Environmental Toxicology and Chemistry Annual Meeting, Nashville, TN.
- Stephens, W.W. and J.L. Farris. 2000. Biomonitoring effluent impacts of nutrient loading from aquaculture. 21st Annual Meeting of the Society of Environmental Toxicology and Chemistry. Nashville, Tennessee.
- Davis, S. and J.L. Farris. 2000. The Globe Program^R: A teaching strategy for environmental education. 21st Annual Meeting of the Society of Environmental Toxicology and Chemistry. Nashville, Tennessee.
- Maul, J. D., M. T. Moore, J. L. Farris and C. M. Cooper. 2000. Water Quality Regulations Affecting Agricultural Production Practices in the 21st Century: TMDLs. Arkansas Crop Management Conference 2000, Little Rock, AR.
- Farris, J.L., C.M. Cooper, M.T. Moore, and D.L. Feldman. 2000. Attributes of ditch ecosystems as constricted remnant wetlands. Sustainability of Wetlands and Water Resources Conference. Oxford, MS.
- Feldman, D.L., J.L. Farris, M.T. Moore and C.M. Cooper. 2000. Characterization of macroinvertebrate communities and the conditions that define agricultural drainage ditches. North American Benthological Society Annual Meeting, Denver, CO.
- Ash, T.V., D.L. Feldman and J.L. Farris. 2000. Assessing river impact in an intact priority watershed designated for restoration. North American Benthological Society Annual Meeting, Denver, CO.
- Maul, J.D. and J.L. Farris. 2001. Examination of plasma Cholinesterase inhibition in the Northern Cardinal, *Cardinalis cardinalis*, in the agricultural landscape of northeast Arkansas. Society of Environmental Toxicology and Chemistry 22nd Annual Meeting, Baltimore, MD.

- Stephens, W.W. and J.L. Farris. 2001. Biomonitoring of Effluent and Nutrient Contributions From Aquaculture. 70th Annual Meeting of the Arkansas Water Works & Water Environment Association. Hot Springs, Arkansas.
- Bouldin, J.L., C.D. Milam, J.L. Farris, M.T. Moore, S. Smith, Jr., C.M. Cooper, 2001. Effects of esfenvalerate on aquatic and sediment dwelling organisms in agricultural ditch mesocosms. 22nd Annual Meeting of Society of Environmental Toxicology and Chemistry. Baltimore, Maryland.
- Bouldin, J.L., C.D. Milam, J.L. Farris, M.T. Moore, S. Smith, Jr., C.M. Cooper. 2001. Function of agricultural ditches in minimizing non-point pollution. Arkansas Water Works & Water Environment Association, Hot Springs, AR.
- Stephens, W.W. and J.L. Farris. 2001. Legitimizing biomonitoring for measuring impairments in aquaculture discharges. MidSouth Regional Society of Environmental Toxicology and Chemistry. Arkansas State University. Jonesboro, Arkansas.
- Feldman, D.L., J.L. Farris, C.D. Milam, M.T. Moore, S.J. Smith, and C.M. Cooper. 2001. Seasonal variation of biotic and abiotic factors that characterize agricultural drainage ditches. North American Benthological Society annual meeting, LaCrosse WI.
- Milam, C.D., J.L. Bouldin, R. Schulz, J.L. Farris, M.T. Moore, E. Bennett, C.M. Cooper, and S.J. Smith. 2001. Evaluating toxicity of methyl parathion application in constructed wetland mesocosms. North American Benthological Society annual meeting, LaCrosse WI.
- Winterringer, R., J. L. Farris, J.L. Harris, and C.D. Milam. 2001. Correlation of habitat characteristics to indicate mussel bed occurrence in the Middle Fork Little Red River, Arkansas. North American Benthological Society annual meeting, LaCrosse WI.
- Stephens, W.W. and J.L. Farris. 2001. Bioassessment in Consideration of TMDLs. Union County Emergency Planning Committee. El Dorado, Arkansas.
- Stephens, W.W. and J.L. Farris. 2001. Characterization of Channel Catfish Fingerling Effluents with Biomonitoring. 22nd Annual Meeting of Society of Environmental Toxicology and Chemistry. Baltimore, Maryland.
- Stephens, W.W., J.L. Farris, and P.A. Stewart. 2001. Legitimizing the Biomonitoring Approach to Aquaculture Effluent Characterization. 22nd Annual Meeting of Society of Environmental Toxicology and Chemistry. Baltimore, Maryland.
- Moore, M.T., C.M. Cooper, E.R. Bennett, S. Smith, Jr., and J.L. Farris. 2001. Fate of pesticides and nutrients in linear wetlands (ditches). 5th Annual American Farm Bureau Watershed Heroes Conference, Amana, Iowa.
- Moore, M.T., C.M. Cooper, E.R. Bennett, S. Smith, Jr., F.D. Shields, Jr., and J.L. Farris. 2001. Vegetated drainage ditch research in the Mississippi Delta Management Systems Evaluation Area (MDMSEA): Current results and future directions. 222nd American Chemical Society National Meeting, Chicago, Illinois.
- Moore, M.T., C.M. Cooper, E.R. Bennett, S. Smith, Jr., J.L. Farris, C.D. Milam, and F.D. Shields, Jr. 2001. TMDL and water quality implications of vegetated drainage ditch research. 22nd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Baltimore, Maryland

- Rauschenberger, R.H., J.L. Farris, and S.E. Trauth. 2001. Viability of alligator snapping turtle, (*Macrolemys temminckii*) hatchlings incubated in treated and non-treated substrates. 22nd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Baltimore, Maryland.
- Schulz, R., Moore, M.T., Bennett, E.R., Milam, C.D., Bouldin, J.L., Farris, J.L., Smith, S. and Cooper, C.M. 2001. Methyl-parathion effects on macroinvertebrates in vegetated and unvegetated wetland mesocosms. 22nd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Baltimore, Maryland.
- Bennett, E.R., M.T. Moore, R. Schulz, C.M. Cooper, J.L. Farris. 2001. Comparative mitigation of methyl-parathion associated runoff in vegetated and non-vegetated wetlands. 22nd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Baltimore, Maryland.
- Milam, C.D., J.L. Bouldin, R. Schulz, J.L. Farris, M.T. Moore, E.R. Bennett, C.M. Cooper, and S. Smith. 2001. Methyl parathion effects to aquatic organisms following a simulated storm event in constructed wetland mesocosms. 22nd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Baltimore, Maryland.
- Winterringer, R.M., J.L. Farris, J.L. Harris, and C.D. Milam. 2001. Habitat Characterization and Current status of *Lampsilis streckeri* (Frieron 1927) in the Middle Fork Little Red River, Arkansas. Freshwater Mollusk Conservation Society Symposium, Pittsburgh, PA.
- Farris, J.L., C.D. Milam, J.L. Bouldin, M.T. Moore, S. Smith, Jr., C.M. Cooper, 2001. Evaluating toxicity of Asana XL (esfenvalerate) amendments in agricultural ditch mesocosms. North American Benthological Society annual meeting. Lacrosse, WI.
- Farris, J.L., C.D. Milam, J.L. Harris, and R. Shelton. 2002. Mussel propagation projects: facilities and techniques used at the Mammoth Spring National Fish Hatchery. Freshwater Mussel Conservation Society Propagation Workshop. Invited talk. National Conservation Training Center, Shepardsstown, WV.
- Moore, M.T., C.M. Cooper, S. Smith, Jr., E.R. Bennett, R. Schulz, J.L. Farris, and F.D. Shields, Jr. 2002. Influence of vegetation in mitigation of methyl parathion runoff. 6th International Conference on Diffuse Pollution, Amsterdam, The Netherlands. (also published proceedings p. 111-118)
- Cooper, C.M., M.T. Moore, E.R. Bennett, S. Smith, Jr., J.L. Farris, C.D. Milam, and F.D. Shields, Jr. 2002. Innovative uses of vegetated drainage ditches for reducing agricultural runoff. 6th International Conference on Diffuse Pollution, Amsterdam, The Netherlands (also published proceedings p. 119-126).
- Milam, C.D., P. Scheuerman, J.L. Farris, A. McBride, and J.L. Bouldin. 2002. Characterization of sediment associated microbial enzyme activity from agricultural drainage systems. 23rd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Salt Lake City, Utah.
- Hobbs, M.S., R.S. Grippo, J.L. Farris, B.R. Griffin, and L.L. Harding. 2002. Environmental fate and effects of the aquaculture therapeutic potassium permanganate. 23rd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Salt Lake City, Utah.
- Harding, L.L., J.L. Farris, and W.D. Snyder. 2002. Assessment of instream conditions for two deltaic streams receiving treated municipal effluent. 23rd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Salt Lake City, Utah.

- Maul, J.D. and J.L. Farris. 2002. Relationship among asymmetry, condition index, reproductive success, and cholinesterase activity of Northern Cardinals. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting, Salt Lake City, UT.
- Maul, J.D., J.P. Gandhi, and J.L. Farris. 2002. Cloacal microbial flora in breeding and wintering birds: Overall prevalence and relationship to condition index, fluctuating asymmetry, and habitat. 3rd North American Ornithological Conference, New Orleans, LA.
- Bennett, E.R., M.T. Moore, C.M. Cooper, S. Smith, Jr., J.L. Farris, C.D. Milam, R. Schulz, and R.L. Letcher. 2002. Mitigation of pesticide-associated runoff in vegetated agricultural drainage ditch systems. 12th Annual Meeting of the Society of Environmental Toxicology and Chemistry - Europe, Vienna, Austria.
- Maul, J.D., J.L. Farris, and P.A. Stewart. 2002. An opinion survey on hormesis and perceived risk of low contaminant exposure concentrations. Mid South Regional Chapter of the Society of Environmental Toxicology and Chemistry. Annual Meeting, Vicksburg, MS.
- Maul, J.D. and J.L. Farris. 2002. Patterns in Northern Cardinal (*Cardinalis cardinalis*) plasma cholinesterase enzyme activity and relationship to condition index and fluctuating asymmetry. 3rd North American Ornithological Conference, New Orleans, LA.
- Posey, W.R., II, J.L. Farris, C.D. Milam, and J.L. Harris. 2002. Development of a geographic information system (GIS) database for native Arkansas mussels. American Fisheries Society, Southern Division Symposium, Little Rock, AR.
- Winterringer, R., J.L. Farris, and J.L. Harris. 2002. Reproductive behavior and population dynamics of the endangered freshwater mussel, *Lampsilis streckeri* (Frierson 1927), in the Middle Fork Little Red River, Arkansas. American Fisheries Society, Southern Division Symposium, Little Rock, AR.
- Gandhi, J.P., A.D. Christian, and J.L. Farris. 2002. The effects of freshwater mussel filter feeding on seston and microbial biomass and diversity from a successful mussel refuge. American Fisheries Society, Southern Division Symposium, Little Rock, AR.
- Milam, C.D., J.L. Harris, J.L. Farris, and L.G. Morris. 2002. Electronic key for identifying Arkansas freshwater mussel species. American Fisheries Society, Southern Division Symposium, Little Rock, AR.
- Maul, J.D. and J.L. Farris. 2002. Does avian body condition, fat score, fluctuating asymmetry, and cloacal bacteria loads predict oxime reactivations of cholinesterase and cholinesterase activities below diagnostic thresholds? Mid South Regional Chapter of the Society of Environmental Toxicology and Chemistry. Annual Meeting, Vicksburg, MS.
- Scott, M., J.D. Maul, and J.L. Farris. 2002. Characterization of Northern Cardinal (*Cardinalis cardinalis*) nest structure and nest site vegetation. Arkansas State University Undergraduate Scholars Day Poster Presentation, State University, AR.
- Maul, J.D. and J.L. Farris. 2002. Plasma Cholinesterase inhibition in the Northern Cardinal, *Cardinalis cardinalis*. Arkansas Soil and Water Education Conference, Jonesboro, AR.
- Stephens, W.W., P.A. Stewart, and J.L. Farris. 2002. Nutrient Contributions from Aquatic Animal Production Facilities and Mechanisms for Describing and Understanding Their Impacts. Arkansas Political Science Conference-Environmental Policy Panel. Arkansas

State University. Jonesboro, Arkansas.

- Stephens, W.W. and J.L. Farris. 2002. A Biomonitoring Approach to Aquaculture Effluent Characterization in Channel Catfish Fingerling Production. SETAC Mid South Region Annual Meeting. "Environmental Quality Issues in the South". Waterways Experiment Station, U.S. Army Corps of Engineers, Vicksburg, Mississippi.
- Bouldin, J.L., C.D. Milam, J.L. Farris. 2002. Application of instream biomonitoring to a watershed assessment in Northwest Arkansas. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting, Salt Lake City, UT.
- Bouldin J.L., J.L.Farris, M.T.Moore, S. Smith,Jr, P. Hendley, C.D.Milam, C.M.Cooper, 2002. Evaluating fate and effects of atrazine and l-cyhalothrin in vegetated and unvegetated ditch mesocosms. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting, Salt Lake City, UT.
- Stephens, W.W. and J.L. Farris. 2002. Instream Community Assessment and Biomonitoring of Associated Aquaculture Effluents. 23rd. Annual Meeting of Society of Environmental Toxicology and Chemistry. Salt Lake City, Utah.
- Bouldin, J.L., C.D. Milam, J.L. Farris, M.T.Moore, E.R. Bennett, S. Smith, Jr., and C.M. Cooper. 2002. Effects of esfenvalerate on aquatic and sediment dwelling organisms, in agricultural ditch mesocosms. 4th Annual Arkansas Soil and Water Education Conference, Jonesboro, Arkansas
- Milam, C.D., J.L. Bouldin, J.L. Farris, R. Schulz, M.T.Moore, E.R. Bennett, S. Smith, Jr., and C. M. Cooper. 2002. Methyl parthion effects to aquatic organisms following a simulated storm event in constructed wetland mesocosms. 4th Annual Arkansas Soil and Water Education Conference, Jonesboro, Arkansas.
- Bouldin, J.L., J.L. Farris, M.T. Moore, C.M.Cooper. 2003. Vegetative and structural characteristics of agricultural drainages in the Mississippi Delta landscape. 5th Annual Arkansas Soil and Water Education Conference. Jonesboro, AR.
- Maul J.D., J.L. Farris, C.D. Milam, C.M. Cooper, S. Testa III, and D.L. Feldman. 2003. The influence of stream habitat and water quality on macroinvertebrate communities. Society of Environmental Toxicology and Chemistry 24th Annual Meeting, Austin, TX.
- Bouldin J.L., J.L.Farris, M.T.Moore, and C.M.Cooper. 2003. Vegetative and structural characteristics of agricultural drainages in the Mississippi Delta landscape. Society of Environmental Toxicology and Chemistry. Austin, TX.
- Stephens, W.W. and J.L. Farris. 2003. Regional considerations of instream community assessments associated with nutrient contributions from aquaculture discharges in the Delta Ecoregion. North American Benthological Society, Athens, Georgia
- Bouldin J.L., J.L.Farris, M.T.Moore, and C.M.Cooper. 2003. Physical and vegetative characteristics of agricultural drainages in the Mississippi Delta landscape. Platform session. MidSouth Regional Society of Environmental Toxicology and Chemistry Society annual meeting. Nashville, TN.
- McBride, A.S., J.L. Farris, R.A. Kuhnle, D.G. Wren. 2003. Freshwater mussel response to various flow conditions. 3rd Biennial Symposium Freshwater Mollusk conservation Society. Durham, NC.

- Seagraves, J.H., J.L. Farris, J.L. Harris. 2003. Life history and habitat characterization of the federally endangered freshwater mussel *Arkansia wheeleri*. 3rd Biennial Symposium Freshwater Mollusk conservation Society. Durham, NC.
- Winterringer, R., J.L. Farris, J.L. Harris. 2003. Population dynamics and reproductive behaviors of *Lampsilis streckeri* (Frierson 1927), in a geographically isolated stream in Arkansas. 3rd Biennial Symposium Freshwater Mollusk conservation Society. Durham, NC.
- McCann, M.T., J.L. Farris, R.J. Neves. 2003. Impacts on early lifestages of freshwater mussels from sediments and contributed metals associated with surface mining in Southwest Virginia. 3rd Biennial Symposium Freshwater Mollusk conservation Society. Durham, NC.
- Stephens, W.W. and J.L. Farris. 2003. Assessment of instream communities associated with nutrient contributions from aquaculture discharges in the Delta Ecoregion. 24th Annual Meeting of Society of Environmental Toxicology and Chemistry, Austin, Texas.
- Stephens, W.W. and J.L. Farris. 2003. Community assessments of streams receiving aquaculture effluents in the Arkansas Delta. SETAC Mid-South Region Annual Meeting. Delineation of Environmental Issues: Local Aspects. Center in Molecular Toxicology, Vanderbilt University, Nashville, Tennessee.
- Scott, M.C., J.L. Farris, A.D. Christian. 2003. Propagation of the Arkansas fatmucket, *Lampsilis powellii* (Lea, 1852). Arkansas State Wildlife Society Meeting, Jonesboro, AR.
- Seagraves, J.H., J.L. Farris, J.L. Harris. 2003. Life history and habitat characterization of the federally endangered freshwater mussel *Arkansia wheeleri*. Arkansas State Wildlife Society Meeting, Jonesboro, AR.
- Stephens, W.W. and J.L. Farris. 2003. Biomonitoring: a tool to analyze & characterize effluents from channel catfish fingerling production. World Aquaculture Society at the Aquaculture America Conference, Louisville, Kentucky.
- Stephens, W.W. and J.L. Farris. 2003. Relating instream community assessments to aquaculture effluents. World Aquaculture Society at the Aquaculture America Conference, Louisville, Kentucky.
- Stephens, W.W. and J.L. Farris. 2003. Instream community assessment of aquaculture effluents. Catfish Farmers of Arkansas Annual Meeting, Hot Springs, Arkansas.
- Bouldin J.L., J.L.Farris, M.T.Moore, and C.M.Cooper. 2003. Physical and vegetative characteristics of agricultural drainages in the Mississippi Delta landscape. North American Benthological Society annual meeting. Athens, GA.
- Hobbs, M.S., R.S. Grippo, J.L. Farris, L. Harding. 2003. Responses of Non-Target Organisms to Aqueous Potassium Permanganate Exposure. 24th North American SETAC Annual Meeting, Austin TX.
- Hobbs, M.S., R.S. Grippo, J.L. Farris, L. Harding. 2003. Responses of Non-Target Organisms to Aqueous Potassium Permanganate Exposure. Arkansas Wastewater and Water Environment Associations, Hot Springs, AR.
- Moore, M.T., J.R. Pierce, and J.L. Farris. 2004. Water Quality Analysis of an Intensively Used Agricultural Reservoir. Mississippi Water Resources Research, Raymond, MS. (also published in proceedings).

- Bouldin, J.L., J.L. Farris, M.T. Moore, S. Smith Jr. and C.M. Cooper. 2004. Evaluating toxicity of diazinon in agricultural associated runoff through constructed wetlands. North American Benthological Society annual meeting, Vancouver, BC.
- Stephens, W.W., M.T. Moore, J.L. Farris, J.L. Bouldin, and C.M. Cooper. 2004. Considerations for evaluating water body condition in agriculturally dominated drainage systems in the Mississippi and Arkansas deltas. North American Benthological Society, Vancouver, BC.
- Stephens, W.W., M.T. Moore, J.L. Farris, J.L. Bouldin, and C.M. Cooper. 2004. Considerations for assessments of wadeable drainage systems in the agriculturally dominated deltas of Arkansas and Mississippi. SETAC Mid-South Region Annual Meeting. "Education and Environment in the Mid-South". University of Mississippi, Oxford, Mississippi..
- Bouldin, J.L., J.L. Farris, M.T. Moore, S. Smith Jr. and C.M. Cooper. 2004. Evaluating toxicity of diazinon in agricultural associated runoff through constructed wetlands. MidSouth Society of Environmental Toxicology and Chemistry. Oxford, MS.
- Scott, M.C., J.L. Farris, A.D. Christian J.L. Harris. 2004. Propagation of the Arkansas Fatmucket, *Lampsilis powellii* (Lea, 1852). Arkansas Academy of Science Meeting, Jonesboro, AR.
- Scott, M.C., J.L. Farris, A.D. Christian J.L. Harris. 2004. Potential host determination and propagation of the Arkansas Fatmucket, (*Lampsilis powellii*), from the Ouachita and Saline River drainages. Southern District American Fisheries Society Meeting, Oklahoma City, OK.
- Farris, J.L., J.H. Seagraves, J.L. Harris. 2004. Freshwater mussel propagation at Arkansas State University and Mammoth Spring National Fish Hatchery. Coolwater Fish Culture Workshop, Hot Springs, AR
- Moore M.T., C.M. Cooper, S. Smith, Jr., R.W. Steinriede, Jr., J.L. Farris, and W.W. Stephens. 2003. Drainage ditch monitoring of the Delta Conservation Demonstration Center (DCDC), Mississippi, USA. Abstracts of the 24th Annual Meeting of the Society of Environmental Toxicology and Chemistry, Austin, TX. p. 200-201.
- Ashcraft, E.A., J.L. Farris and R. Hannigan. 2004. Use of relic unionid shells to determine time since mortality. Mid South Regional Chapter of the Society of Environmental Toxicology and Chemistry Annual Meeting, Oxford, MS.
- Walker, B.W., J.L. Farris, M.A. Nelson. 2004. Characterization and biomonitored responses to turbidity in a NE Arkansas River. Mid South Regional Chapter of the Society of Environmental Toxicology and Chemistry Annual Meeting, Oxford, MS.
- Ogendi, G.M., Hannigan, R.E., Farris, J.L, Smith, D. 2004. The impact of black shale weathering on sediment quality. Mid South Regional Chapter of the Society of Environmental Toxicology and Chemistry Annual Meeting, Oxford, MS.
- Ogendi, G.M., Farris, J.L, Hannigan, R.E. 2004. Black shale trace metal concentrations and Toxicity: Preliminary findings. 11th International Symposium on Water Rock Interaction. Saratoga Springs, NY.
- Ogendi, G., Abanda, A., Hannigan, R., and Farris, J. 2004. Chemical weathering of black shales and their ecological impacts on streams. Geol. Soc. Am. Ann. Meeting. Denver, CO.
- Ashcraft, E.A., J.L. Farris, R. Hannigan. 2004. Use of historic relic records to determine damage and causality in events of industrial discharge. Arkansas Water Works and Water

Environmental Association 73rd Annual Conference, Hot Springs, AR.

Walker, B.W., J.L. Farris, M.A. Nelson. Characterization and biomonitored responses to turbidity in a NE Arkansas River. Arkansas Water Works and Water Environmental Association 73rd Annual Conference, Hot Springs, AR.

Ogendi, G.M., Hannigan, R.E., Farris, J.L, Smith, D. 2004. The impact of black shale weathering on sediment quality: Preliminary findings. 88th Annual Meeting of the Arkansas Academy of Science. Jonesboro, AR.

Hobbs, M.S., R.S. Grippo, J.L. Farris, L.L. Harding, B.R. Griffin. 2004. Environmental effects of the aquaculture therapeutant potassium permanganate. Mid-South Regional Chapter of SETAC, Oxford, Mississippi.

J.L. Harris, J.L. Farris, and A.D. Christian. 2005. Conservation of the special concern Ouachita Creekshell [*Villosa arkansasensis* (Lea 1852)]: life history, ecology, and conservation implications. Oral Platform Session 24 of the 4th Biennial Symposium of the Freshwater Mollusk Conservation Society, May 15-18 2005. St. Paul, Minnesota, USA. Abstract published on page 42 of the Meeting Program.

Seagraves, S.E., J.L. Harris, J.L. Farris, and A.D. Christian. 2005. Conservation of the special concern Ouachita Creekshell [*Villosa arkansasensis* (Lea 1852)]: life history, ecology, and 15 conservation implications. Oral presentation 582 of the 2005 Joint Assembly of the Annual Meeting of the North American Benthological Society, May 22-27, 2005. New Orleans, Louisiana, USA. Abstract published on page 447 of NABS Bulletin Volume 22(1).

Peck, A. J., H. E. McIntire, J. L. Farris, J.L. Harris, R.J. Looney, and A. D. Christian. 2005. Habitat restoration plan and programmatic biological assessment plan for *Potamilus capax* (Green 1832) in Arkansas. International Conference on Ecology and Transportation. San Diego, California.

Peck, A.J. , J.L. Harris, and A.D. Christian. 2005. A reach scale comparison of fluvial geomorphological conditions of freshwater mussel (Bivalvia: Unionoidea) beds: Differences between the haves and have nots. Joint Assembly of the Annual Meeting of the North American Benthological Society, May 22-27, 2005. New Orleans, LA. Abstract published on page 447 of NABS Bulletin Volume 22(1).

Hannigan, R.E. and Farris, J.L. 2005. Research Internships in Science of the Environment (RISE) at Arkansas State University. Invited presentation at Annual Meeting of the American Chemical Society, March 13-17. San Diego CA.

Ogendi, G.M., Hannigan, R.E. and Farris, J.L., 2005. Trace metal concentrations and macroinvertebrate assemblages in black shale-draining streams. The joint North American Benthological Society and American Geophysical Union meeting, 23-27 May, 2005 in New Orleans, LA.

Ogendi, G.M., Hannigan, R.E., and Farris, J.L. 2005. The toxicity of metal-enriched black shale-draining surface water to *Ceriodaphnia dubia* and *Pimephales promelas*. Society of Environmental Toxicology and Chemistry, Baltimore MD.

Ogendi, G., Hannigan, R.E, and Farris, J.L. 2005. Effects of acid volatile sulfide on black shale sediment-metal bioavailability and toxicity to *Chironomus tentans*. Geological Society of America Annual Meeting, Salt Lake City, UT.

- Ashcraft, E.A., Farris, J.L., Walker, B.L., and Hannigan, R. 2005. Use of relic shells to determine time since mortality. The joint North American Benthological Society and American Geophysical Union meeting, 23-27 May, 2005 in New Orleans, LA.
- Guerra, B., J.L. Farris, M.T. Moore, N. Enger-Luster. Acute lethal concentrations of caffeine on non-target freshwater organisms. 4th Annual Undergraduate Research Conference of the Colonial Academic Alliance, James Madison University. 2006.
- Christian, A.D., A.J. Peck, J.L. Harris, and J.L. Farris. 2006. Movement patterns of freshwater mussels following relocation: a case study of *Potamilus capax* and *Quadrula quadrula* in an Arkansas drainage ditch. 54th Annual Meeting of the North American Benthological Society, Anchorage Alaska. June 4-8, 2006. Abstract 483 on page 284 of Bulletin of the North American Benthological Society 23(1).
- Seagraves, S.E., J.L. Harris, J.L. Farris and A.D. Christian, A.D. 2006. Conservation of the Ouachita Creekshell [*Villosa arkansasensis* (Leal852)]: reproduction and host fish suitability. 54th Annual Meeting of the North American Benthological Society, Anchorage Alaska. June 4-8, 2006. Abstract 484 on page 285 of Bulletin of the North American Benthological Society 23(1).
- Peck, A.J., J.L. Harris, J.L. Farris and A.D. Christian. 2006. Movement patterns of freshwater mussels following relocation: a case study of *Potamilus capax* and *Quadrula quadrula* in an Arkansas drainage ditch. Annual meeting of the Arkansas Chapter American Fisheries Society, DeGray Lake Resort State Park, February 1-3, 2006. Abstract on page 28 of meeting program.
- Allen, R.A., A.J. Peck, J.M. Loutsch, J.L. Farris, and A.D. Christian. 2006. The use of relative glycogen concentrations to assess fitness of freshwater mussels (Mollusca: Bivalvia) fitness. Undergraduate Scholars Day 2006. Arkansas State University
- A.J. Peck, J.L. Harris, J.L. Farris and A.D. Christian. 2006. Movement patterns of freshwater mussels following relocation: a case study of *Potamilus capax* and *Quadrula quadrula* in an Arkansas drainage ditch. Annual meeting of the Arkansas Chapter American Fisheries Society, DeGray Lake Resort State Park, February 1-3, 2006.
- Seagraves, S.E., J.L. Harris, J.L. Farris and A.D. Christian, A.D. 2006. Conservation of the Ouachita Creekshell [*Villosa arkansasensis* (Lea1852)]: reproduction and host fish suitability. Annual meeting of the Arkansas Chapter American Fisheries Society, DeGray Lake Resort State Park, February 1-3, 2006.
- Gopalan, M. B., Bouldin, J.L., Farris, J.L. 2006. Use of biomonitoring at farm-scale to formulate and assess the impacts of improved cotton farming practices upon reduction of ecological risk. Proceedings of an International Perspective on Environmental and Water Resources, New Delhi, India.
- Gopalan, M.B., Farris, J.L., Bouldin, J. L., 2006. Risk assessment of integrated management: selected measures of benefits. Arkansas Water Works & Water Environment Association Annual meeting, Hot Springs, AR.
- Moore, M.T., C.M. Cooper, S. Smith, Jr., E.R. Bennett, R.E. Lizotte, Jr., R.F. Cullum, R. Kröger, M.A. Locke, and J.L. Farris. 2006. Edge-of-field wetland management practices for agricultural non-point source pollution mitigation: Is greener better? Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base (organized by the Soil and Water Conservation Society), Kansas City, Missouri.

- Greenway, S.L., B. Guerra, J.L. Farris, and M.T. Moore. 2006. Assessing caffeine as an emerging environmental concern using conventional approaches. Annual Meeting of the Mid-South Regional Society of Environmental Toxicology and Chemistry, Jonesboro, Arkansas. p. 19.
- Bouldin, J.L., J.L. Farris, M.T. Moore, S. Smith, Jr., W.W. Stephens, and C.M. Cooper. 2006. Microcosm evaluation of the fate and effects of atrazine and lambda-cyhalothrin in unvegetated and vegetated monocultures. Annual Meeting of the Mid-South Regional Society of Environmental Toxicology and Chemistry, Jonesboro, Arkansas. p. 17.
- Farris, J., R. Dexter, J. Kern, T. Goeks, N. Beckvar. 2006. Adaptive management in long-term biomonitoring programs: Bivalve bioaccumulation correlation analysis. 27th Annual Meeting of SETAC North America, Montréal, Quebec, Canada. Abstract on p. 172
- Hudson, T. and J.L. Farris. 2006. Biomonitoring of an urbanized watershed to help establish and achieve locally developed management goals. 27th Annual Meeting of SETAC North America, Montréal, Quebec, Canada, November 5-9, 2006. Abstract on p. 296 of the meeting abstract book.
- Greenway, S., B. Guerra, J. Farris, M. Moore. 2006. Establishing conventional species sensitivity data for caffeine as an emerging contaminant posing risk to aquatic environments. 27th Annual Meeting of SETAC North America, Montréal, Quebec, Canada. Abstract on p. 367 of the meeting abstract book.
- Hobbs, M.S., Grippio, R.S., Farris, J.L., Griffin, B.R. 2006. Aquatic mesocosm assessment of the aquaculture therapeutant potassium permanganate – effect on ionoregulation of target animals. 27th Annual Meeting of SETAC North America, Montréal, Quebec, Canada. Abstract on p. 251 of the meeting abstract book.
- Gopalan, M.B., Farris, J.L., Bouldin, J.L. 2006. Assessing ecological risk of improved management practices at a farm – scale using laboratory biomonitoring. 27th Annual Meeting of SETAC North America, Montréal, Quebec, Canada. Abstract on p. 339 of the meeting abstract book.
- Peck, A.J., J.L. Harris, J.L. Farris and A.D. Christian. 2007. Assessment of freshwater mussel relocation as a conservation strategy 5th Biennial Freshwater Mollusk Conservation Society Symposium. Direction in Freshwater Mollusk Conservation: molecules to ecosystems. Little Rock, Arkansas. Abstract on Page 83.
- Wentz, N.J., A.D. Christian, J.L. Harris, and J.L. Farris. 2008. The use of biotic and habitat indices as indicators of freshwater mussel habitat in the Tyronza River, Arkansas. Oral presentation at the Joint Arkansas and Mississippi Annual meeting of the Arkansas Chapter American Fisheries Society, Tunica, Mississippi. Abstract on page 74 of meeting program.
- Wentz, N.J., A.D. Christian, J.L. Harris, and J.L. Farris. 2009. Can rapid bioassessment protocols be used as indicators of mussel communities?. Abstract on page 99 of the 2009 International Symposium of the Freshwater Mollusk Conservation Society Program. Baltimore, MD
- Harris, J.L., W.R. Hoeh, W.R. Posey, C.L. Davidson, S. Rogers Oetker, J.L. Farris, J.M. Serb, K. Inoue, D.L. Hayes, M.E. Gordon, and A.D. Christian. 2009. Species richness and conservation status of Arkansas' unionoid bivalves. Abstract on page 64 of the 2009 International Symposium of the Freshwater Mollusk Conservation Society Program. Baltimore, MD
- Peck, A.J., J.L. Harris, J.L. Farris, and A.D. Christian. 2009. Assessment of the short and moderate term

- effects of relocation on the fitness and behavior of *Potamilus capax* (Green, 1832) and *Quadrula quadrula* (Rafinesque, 1820). Platform presentation #PL29. Abstract on page 35 of the 2009 International Symposium of the Freshwater Mollusk Conservation Society Program. 19-23 April 2009. Baltimore, Maryland.
- Harris, J. L., W. R. Posey, C. L. Davidson, J. L. Farris, S. O. Rogers, J. N. Stoeckel, B. G. Crump, Barnett, H. C. Martin, M. W. Matthews, J. Seagraves, N. J. Wentz, R. Winterringer, C. Osborne, and A. D. Christian. 2009. Unionoida (Mollusca: Margaritiferidae, Unionidae) in Arkansas, Third Status Review. 93rd Annual Meeting of the Arkansas Academy of Science. University of the Ozarks, Clarksville, Arkansas.
- Moore, M.T., Kroger, R., Locke, M.A., Cooper, C.M., Farris, J.L., Bennett, E.R., Denton, D.L. 2010. From vegetated ditches to rice fields: Thinking outside the box for pesticide mitigation. 239th National Meeting of the American Chemical Society, March 21-25, San Francisco, CA. Picogram v. 78: 104.
- Bennett, E.R., M.T. Moore, R. Kröger, C.M. Cooper, K.G. Drouillard and J.L. Farris. 2010. Vegetated agricultural drainage ditches and pesticide mitigation: A North American perspective. ArtWET Meeting, Mitigation of agricultural nonpoint-source pesticide pollution and phytoremediation in artificial wetland ecosystems, Landau, Germany.
- Bennett, E.R., M.T. Moore, R. Kroger, M.A. Locke, J.L. Farris, C.M. Cooper, D.L. Denton and P.B. Rodrigue. 2010. Vegetated agricultural drainage ditches: A new conservation practice utilizing current landscape features. 2nd Annual Remediation and Prevention Conference, Winnipeg, Manitoba.
- Littlejohn, K.A., Kroger, R., Moore, M.T., Farris, J.L. 2011. Low-grade weirs in agricultural drainage ditches: An experimental approach to decreasing nitrate-N. Abstracts of the Joint Meeting of the Society of Wetland Scientists, Wetpol and Wetland Biogeochemistry Symposium, Prague, Czech Republic, 3-8 July, 2011. p. 417.
- Moore MT, Locke MA, Kroger R, Farris JL, Tyler HL, and Hudson TC. 2013. Vegetation's role in mitigation of phosphorus from agricultural ditch systems. ASA, CSSA, & SSSA International Annual Meetings, November 3-6, Tampa, Florida.
- Farris JL, PR Scheuerman and DS Cherry. 2013. Patterns of macroinvertebrate responses in South Indian Creek and tributaries receiving mineral contributions throughout an elaborate interstate construction project for Tennessee and North Carolina. Invited presentation to Entomological Society of America, 61st Annual Meeting, November 10-13, Austin, Texas.
- Iseyemi, O.O, JL Farris, MT Moore and S. Choi. 2014. The influence of landscape properties on agricultural drainage system metabolism. Society of Environmental Toxicology and Chemistry (SETAC) North America 36th Annual Meeting, Vancouver, BC Canada, November 2014.
- Iseyemi, O.O, JL Farris, VS Green, MT Moore and S. Choi. 2015. Carbon sequestration potential in agricultural drainage ditches. Society of Environmental Toxicology and Chemistry (SETAC) North America 36th Annual Meeting, Salt Lake City, Utah, November 2015.
- Reba, M.L., K. Kahill, J. Czarnecki, J.R. Rigby Jr, and J.L. Farris. 2015. Early findings from artificial recharge efforts of the Mississippi River Valley Alluvial Aquifer. The American Society of Agricultural and Biological Engineers Annual International Meeting. July 2015, New Orleans, LA.
- Reba, M.L., E. Leonard and J.L. Farris. 2016. Water quality characterization of an on-farm storage

reservoir-tailwater recovery system associated with agricultural production in the Mid-South US (Invited). American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Moore, M., J. Taylor, M. Locke, J. Farris, E. Bennett and R. Kroger. 2016. Drainage ditch mitigation strategies: The past, present, and future of water quality improvement. Annual Water Resources Conference for Universities Council on Water Resources and The National Institutes for Water Resources, June, 2016, Pensacola Beach, FL.

Farris, J.L., T.C. Hudson, O.O. Iseyemi, M.T. Moore, R. Kroger. 2016. Considerations for scaling investigative designs of mitigation efficiency in agricultural drainage ditches: Manipulating landscape properties and hydrology. Annual Water Resources Conference for Universities Council on Water Resources and The National Institutes for Water Resources, June, 2016, Pensacola Beach, FL.

Invited Symposia:

ASU dedication of the Delta Studies Center, Jonesboro, AR, 1997. Environmental concerns for the Delta.

Mississippi River Research Consortium Meeting, La Crosse, WI, 1998. Lower Mississippi River / Delta Environmental Research Consortium: The concept and progress.

The University of Mississippi, Department of Biology, Oxford, MS, 1998. Complexities of assessing the condition of freshwater mussels.

Jonesboro Noon Rotary Club, Luncheon address, Jonesboro, AR, 1999. When things go environmental in the night.

NE Arkansas Conservation District Meeting, Luncheon address, Jonesboro, AR, 1999. Resource assessment in agricultural production.

Arkansas Conference on Waterborne Transportation, Little Rock, AR, 2000. Biomonitoring considerations for assessing environmental changes in navigable rivers.

Sustainability of Wetlands and Water Resources Conference, Oxford, MS, 2000. Attributes of ditch ecosystems as constricted remnant wetlands.

Southern Division American Fisheries Society, Midyear Meeting and Southeastern Fishes Council Annual Meeting, Little Rock, AR, 2002. Aquatic Toxicology Workshop.

AWEA Water Conference, Hot Springs, AR, February 2002. Bioassessment in consideration of TMDLs.

AWW and WEA Specialty Conference, Hot Springs Convention Center, 2003. Lab Pretreatment Session, Aquatic Toxicology.

MidSouth Chapter of the Society of Environmental Toxicology and Chemistry Conference, Oxford, MS, May 26, 2004. Teach the teachers.

Aquaculture 2004 Conference, Honolulu, Hawaii. Prioritizing regional research initiatives for the conservation of Arkansas' freshwater mussels.

EPSCoR Statewide Proposals, Little Rock, AR, September 19, 2005. NanoTox- Bringing ASU's strengths to EPSCoR, with C. Cramer and R. Hannigan.

AgBio Works, Jonesboro, AR, March 31, 2005. Partnering for Water Use: ASU Agriculture and Environmental Sciences.

Society of Environmental Toxicology and Chemistry 26th Annual Meeting, Baltimore, MD, November 2005. Gauging needs and goals for careers in ecotoxicology: Academic benefits.

Propagation and Captive Care of Freshwater Molluscs, Columbus Zoo, March 5, 2006.

Challenges to water quality guidance for protection and propagation of freshwater mussels.

University of Memphis Biology Seminar Series, February 9, 2006. Distinguishing disturbance from impact: The challenge for a reference condition approach.

Research and Technology Transfer Workshop, Jonesboro, AR. January 25, 2006. Growing a technology business: Environmental monitoring.

Arkansas Crop Management Conference, Session V: Soil and Water Conservation, Little Rock, AR, January 3, 2006. Agriculture runoff and alternate control measures.

EPSCoR State Meeting for ASTA considerations, Little Rock, AR, October 1, 2008. EPSCoR Center for Climate Change and Water, Nutrient, and Crop Resources.

Jonesboro Regional Chamber of Commerce, ASU Enrollment Services, High School Counselors Workshop, March 6, 2008. Academic research translated into experiential learning.

Jonesboro Noon Rotary Club, Luncheon address, Jonesboro, AR, August 19, 2008. Preparing for science and math challenges: Water for a sustainable future.

Jonesboro Regional Chamber of Commerce, Green Development Workshop, April 10, 2008. Using trees in riparian areas.

Chancellor's Office and ASU, Campus Legislative Review Day, Sustainable water issues, September 13, 2008.

Society of Environmental Toxicology and Chemistry North America, Annual Meeting Introduction and Closing Session Summary, Tampa, FL, November 2008.

Arkansas Soil & Water Education Conference, Jonesboro, AR, January 22, 2009. Overview of climate change issues facing Arkansas.

Arkansas Soil and Water Education Conference, Jonesboro, AR, January 22, 2009. Overview of climate change issues being faced by Arkansas.

ASU Center for Regional Programs, Professional Development Program, March 20, 2009, Environmental planning and maintenance for climate change impacts to Arkansas facilities; Public health and moisture issues.

Jonesboro University Rotary, Jonesboro, AR, July 16, 2009. Preparing for the challenges of a sustainable future.

ASU Beebe Science Department Mathematics Awareness Event, April 7, 2009. Preparing for challenges of a changing climate.

USDA ARS National Sedimentation Laboratory, Oxford, MS, December 10, 2009. Opening lecture in the NSL Global Climate Change Seminar Series.

MidSouth Regional SETAC Meeting, Memphis TN, May 15, 2010. Status and trends of regional chapter contributions to SETAC North America and globalization.

Jonesboro City Council Meeting, October 5, 2010. Drainage canal vegetation management plan for the City of Jonesboro.

Environmental Health Sciences Graduate Program, East Tennessee State University, Johnson City, TN, April 10, 2010. Structural and functional attributes of agroecosystems.

Green Development Workshop, Arkansas Forestry Commission, Embassy Suites, Rogers, AR, March 10, 2011. Realizing tree potential in riparian management.

ASU Newport Earth Day Seminar, December 15, 2011. Restructuring research and career paths to meet the challenges of climate change.

Chatham University, Pittsburgh, PA March 18, 2011. Visioning for School of the Environment and Sustainability at Eden Hall Campus.

MidSouth Regional SETAC Meeting, May 19, 2011. The Genesis and Evolution of the Lower Mississippi, Central, Delta, Southern- no – MidSouth Regional Chapter.

Jonesboro Exchange Club, December 13, 2013. Mentoring Science With Community Participation.

Arkansas Urban Forestry Council, October 24, 2017. Illinois River Watershed Partnership Workshop, How Trees Benefit Stormwater in the Natural State, presented: Valuing Trees for Ecosystem Services.

Other Professional Engagements:

Symposia organized, "Lower Mississippi River Delta Research Consortium Planning Session" with D. Harding, A. Grippo and R. Grippo, ASU Convocation Center, 1999. Developed from the Publication, " Lower Mississippi River / Delta Environmental Research Consortium: The Concept and Progress" by Maier, K.J., J.W. Grubaugh, K.H. Baer, D. Schlenk, J.L. Farris and

W.H. Benson. 1998.
 USDA, ARS, Invited research participant to Water Quality National Program 201 Component Workshop, Minneapolis, MN 1999
 USDA, ARS, Invited research participant to the Integrated Systems Management National Program Component Workshop, Denver, CO. 2000.
 CEI Engineering Associates, Belz Burrow Development Group, LLC, Barrett and Deacon, P.A. and Arkansas State University, Alternate Analysis Mitigation and Retail Properties, March 29, 2004.
 WERF, Workshop on Partitioning Effects from Multiple Causes of WQS Non-Attainment, Panel participant and contributor. Water Environment Research Foundation, Roaring River State Park, MO. September 27-29, 2005.
 US District Court, Southern District of Ohio, The State of West Virginia and the State of Ohio versus Elkem Metals Co., L.P. Eramet, Marietta Inc. Expert Report, Exhibits and Deposition. May 4, and June 21, 2005.
 Arkansas Bar Association's 12th Annual Environmental Law Conference, Panel participant. Eureka Springs, AR, May 2-3, 2008.
 Arkansas Bar Association's 13th Annual Environmental Law Conference, Arkansas Global Warming Commission Panel, Rogers, AR, May 14-16, 2009.
 University-Federal Dialogue on Environmental and Energy Research and Education, Session Chair and Moderator, NCSE, Reagan Ctr., Washington, DC. January 2009.
 USDA, ARS, Invited research participant to National Program 211 (Water Availability and Watershed Management) Planning Workshop, Chicago, IL, September 2010.
 National Council for Science and the Environment, Antioch University, New England. Translating Research Into Policy, training, Pew Center, Washington, DC. January 2012.
 Delta Symposium XIX: Cultivating the Delta, Biology and Agriculture in the Delta, Invited interdisciplinary panel participant, Jonesboro, AR, March 20, 2013.
 Named a National Academies Education Fellow in the Life Sciences for participation in the National Academies Gulf Coast Summer Institute on Undergraduate Science Education held July 22-26, 2013 at Louisiana State University.

Professional Development and Training:

Basics of Ecological Risk Assessment, SETAC, Charlotte, NC, November, 1998. Funded by research funds.
 Whole Effluent Toxicity Training Course, SETAC, Oxford, MS, May 14-15, 1998. Self-funded with partial funding provided by National SETAC and Midsouth Regional SETAC.
 Vadose Zone Hydrology Short Course at the Univ. of Arkansas, Fayetteville, AR, April 1999. Self-funded.
 ArcView Course at University of Arkansas, Monticello, Spatial Analysis Laboratory, May 1999. Funded by Dean of Arts and Sciences, ASU.
 Issues in the Environment Symposium, Perspectives on Environmental Endocrine Disruption, Fogelman Executive Center, University Memphis, September, 1997. Funded by Buckman Inc.
 Arkansas Water Regulations Update Workshops, Arkansas Environmental Federation, Little Rock, AR, June 1997, 1998, 2000. Self-funded.
 Causal Determination of Biological Impairment, SETAC, Nashville, TN, November, 2000. Partial funding by Biological Sciences and research.
 Science to Support Development of Sediment TMDL's; Short Course and Workshop, Oxford, MS, May 3-4, 2000. Funded by the National Sedimentation Laboratory, USDA/ARS and MS DEQ.
 TMDL Workshop, Jackson, MS, February, 2000. Mississippi DEQ and Tetra Tech, Inc., Funded by USDA/ARS and MS DEQ.
 Ecological Assessments in Agriculture Biotechnology, November 11, 2001, Baltimore MD, SETAC NA, Short Course. Funded by research.

Forecasting Environmental Changes, Reagan Int. Trade Ctr., Washington, DC, February 3-4, 2005, NCSE Conference on Science, Policy and Environment. Funding by research.

Energy for a Sustainable and Secure Future, Reagan Int. Trade Ctr., Washington, DC, January 26-27, 2006, NCSE Conference on Science, Policy and Environment. College funding.

Integrating Environment and Human Health, Reagan Int. Trade Ctr., Washington, DC, February 1-2 2007, NCSE Conference on Science, Policy and Environment. College funding.

Climate Change: Science and Solutions, Reagan Int. Trade Ctr., Washington, DC, January 16, 2008, NCSE Conference on Science, Policy and Environment. Chancellor's funding.

Institute on Teaching and Mentoring, The Compact for Faculty Diversity 2008-2010. Funded by Southern Regional Education Board and College of Sciences and Mathematics. Tampa, FL, Washington, DC, and Atlanta, GA.

Ecological Risk Assessment: Theory and Practice. Nicholas School, Duke University, June 23-27, 2008. Funded by research at ASU.

Our Changing Oceans, Reagan International Trade Ctr., Washington, DC, January 19-21, 2011, NCSE Conference on Science, Policy and Environment. Research funding.

Environment and Security, Reagan International Trade Ctr., Washington, DC, January 18-20, 2012. NCSE Conference on Science, Policy and Environment. Research funding.

Disasters and Environment, Reagan International Trade Ctr., Washington, DC, January 15-17, 2013, NCSE Conference on Science, Policy and Environment. Research and Sponsored Programs funding.

INSTITUTIONAL COMMITTEES

University:

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| 1997-1998 | NCAA Certification, Fiscal Integrity, and Academic Integrity committees |
| 1998-2000 | Safety Advisory Committee |
| 1998-2000 | Delta Studies Advisory Committee |
| 2000 | University Promotion, Retention and Tenure Committee |
| 2001 | ASU-Jonesboro Vice Chancellor Research and AA Search Advisory Committee |
| 2002-2008 | Arkansas Biosciences Institute (ABI), Building Advisory and Planning Committee |
| 2003 | ABI Executive Director Search Committee |
| 2004-2008 | Molecular Biosciences Program Committee |
| 2004-2005 | ABI Search Committee Chair, for Metabolic Engineer |
| 2004 | Strategic Planning Council, Chair Grad Ed and Research Initiatives |
| 2004-2005 | Distinguished ASU Alumni, Selection Committee |
| 2005-2009 | Joint Executive Council, representing Sciences and Mathematics |
| 2005-2009 | Academic Deans Council |
| 2005-2009 | Research and Academic Affairs Council |
| 2006-2008 | Institutional Governance Oversight Committee |
| 2006 | ASU-Jonesboro Chancellor Search Advisory Committee |
| 2007-2008 | ASU Mascot Review Committee |
| 2007-2008 | Task Force on Better Integrating Academic Affairs and Student Affairs |
| 2007- present | Middle East Studies Committee |
| 2008 | High Performance Computing Exploratory Committee |
| 2008-2009 | Doctoral Program Writing Group |
| 2008 | Centennial Program Committee |
| 2008-2009 | Graduate Program Committee |
| 2008-2009 | Academic Deans Council rep to Governance Oversight Committee |
| 2009 | Technology Fee Appropriations Committee |

College:

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| 1997-2000 | Safety Committee |
| 1998-1999 | Doctoral Program Committee on Curriculum |

1998-2000 Doctoral Program Advisory Committee
 1998-2000 Promotion, Retention and Tenure Committee
 1999-2000 Search Committee for Environmental Sciences Program Director
 2000 College of Arts and Sciences Chairs Committee
 2003-2008 Chaired Environmental Sciences Graduate Program Committee
 2004-2007 ABI-Jonesboro Advisory Committee

Department:

1992-2000 Safety Committee
 1995-2000 Recruitment Committee
 1995-1999 Graduate Advisory Selection Committee
 1998-2000 DPRT, Member and Chair
 1999 Search Committee for Aquatic Biologist, Chair
 2000 Environmental Sciences Program Committee, Chair
 2018-**present** Biodiversity Committee
 2020-**present** Curriculum Committee

Professional:

1993-2000 Arkansas Environmental Federation (AEF), Moderator, Professor Sessions
 1993-2002 AEF Education Subcommittee
 1993-2000 Arkansas Zebra Mussel Task Force, appointment
 1994-2001 Arkansas Wastewater Licensing Committee, ADEQ, appointment
 1995-2012 MidSouth Regional SETAC, Founding member, Board Chair and various offices
 1995-2001 SETAC NA Technical Advisory Committee
 1996-2000 AWWLC Technical Educational Subcommittee
 1996-2001 AWWLC, Technical Education Subcommittee
 1997-1999 Associate Editor, Arkansas Academy of Sciences
 1998 Session Chair, Biomonitoring Unionids, SETAC Annual Meeting, Charlotte, NC.
 1998 Chairman, Technical Education Subcommittee for AWWLC
 1999 ASU Delta Studies Center, Advisory Committee
 1999-2012 SETAC NA Faculty mentor for students
 1999-2000 SETAC NA Organizing Committee for Nashville Meeting
 2000-**present** Arkansas Water Resources Center, Technical Advisory Committee
 2000-2002 Arkansas Nuisance Species Task Force, appointment
 2000 SETAC NA Chairperson for poster presentations, Nashville, TN
 2000 SETAC NA Presentation and Publication Review Committee
 2000-2002 Arkansas Governor's Water Quality Task Force, appointment
 2000-2001 Arkansas Soil and Water Conservation Commission, Water Quality Committee
 2004-2021 Jonesboro Stormwater Management Board, Member and Vice-Chair
 2005-2006 Arkansas Extraordinary Resource Waterways Scientific Workgroup, appointment
 2006-2011 Council of Environmental Deans and Directors, (CEDD) member
 2007 SETAC NA Milwaukee Annual Conference, Organizing Committee member
 2007-2009 AR Governor's Commission on Global Warming, Commissioner
 2007-2009 AR GCGW, Ag, Forestry and Waste Management Technical Workgroup
 2007-2009 AR GCGW, Cross Cutting Issues Technical Workgroup
 2008 SETAC NA Tampa Annual Conference, Co-Chair
 2008-2013 SETAC NA Meetings Committee member
 2008-2021 Consortium of Universities for the Advancement of Hydrologic Sciences, ASU
 2008-2015 NCSE EnvironMentors, Director ASU Chapter
 2008-2015 Institute on Teaching and Mentoring, The Compact for Faculty Diversity, Southern
 Regional Education Board, Doctoral Mentoring for awarded fellows or scholars
 2009-2011 CEDD, Key Strategic Directions Committee member

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| 2009-2013 | Clinton Global Initiative University Commitment Rep for EnvironMentors-ASU |
| 2010-2013 | SETAC NA Board of Directors |
| 2010-2011 | SETAC Board Liaison to Global Advisory Groups, Aquatic Macrophytes |
| 2010-2013 | SETAC NA Meeting Committee Liaison to the Board |
| 2011-2015 | NCSE EM, Strategic Planning, Working Group and Task Force subcommittees |
| 2012-2015 | ASU Newport Renewable Energy Technology Advisory Committee |
| 2013-2015 | NCSE EnvironMentors National Advisory Board, appointee and Chair |
| 2021-present | AState Faculty Association Historical Committee |

PROFESSIONAL SERVICE

Program, faculty, and grant reviews furnished for:

Natural Environment Research Council, Swindon, UK
 Natural Sciences and Engineering Research Council of Canada
 Oklahoma Water Resources Research Institute
 Arkansas Water Resources Center, University of Arkansas, 104B USGS
 Eastern Research Group, Inc. under contract to the US EPA
 North Carolina Water Resources Research Institute
 Louisiana Board of Regents EPSCoR
 University of Portland
 University of Kuwait
 Southern Illinois University
 University of Mississippi Biology Department
 Baylor University
 University of Florida IFAS-IRREC
 Middle Tennessee State University College of Science
 East Tennessee State University Department of Public Health
 Wichita State University
 Texas State University, San Marcos
 University of Oklahoma
 USDA ARS Peers
 US EPA
 Virginia Water Resources Research Center
 The Nature Conservancy
 University of Georgia, Warnell School of Forestry and Natural Resources

Editorial reviews for journals:

Archives of Environmental Contamination
 Journal of the North American Benthological Society
 Environmental Management
 Journal of Environmental Quality
 Environmental Toxicology and Chemistry
 Bulletin of Environmental Contamination and Toxicology
 Journal of Soil and Sediment Contamination
 Ecohydrology
 Water
 Science of the Total Environment
 Environmental Science and Pollution Research
 Ecotoxicology and Environmental Safety
 American Midland Naturalist
 Aquatic Botany
 Environmental Monitoring and Assessment
 North American Journal of Aquaculture

Ecological Engineering
Environmental Management
Hydrobiologia
Environmental Toxicology
Arkansas Academy of Sciences
Invertebrate Reproduction and Development
Environmental Pollution
Ecological Engineering
Environmental Sciences and Technology
Journal of Irrigation and Drainage Engineering
River Research and Applications

TEACHING EXPERIENCE:

University

Aquatic Biology and Field Laboratory 5000, 6000
Aquatic Ecology and Field Laboratory 4000, 5000
Honors Biology Laboratory
General Biology Laboratory (Majors and nonmajors) Coordinator
Biology of Animals Laboratory (Zoology) and Coordinator
Biology of Animals Lecture and Honors
Principles of Ecology and Laboratory
Limnology and Field Laboratory
Making Connections Biology
Risk Assessment
Aquatic Ecotoxicology
Global Change Biology
Seminar in Environmental Sciences
Biological Sciences Seminar (Graduate and Undergraduate)
Topical Seminar in Environmental Sciences
Environmental Sciences Internships
Independent Studies
Special Problems
Special Topics
Dissertation and Thesis Directed Studies

COMMUNITY SERVICE:

Member of the Judd Hill Plantation Field Day, Planning Committee, 1995-2004.
Jonesboro Nature Study Center Advisory Council (worked with design, location and consultation for the Forrest L. Wood Crowley's Ridge Nature Center), 1999.
Judge for Science Fairs, VPA, Valley View, West Elementary, Microsociety, 2001-2013.
Judge for Undergraduate Scholars Day, Create AState, ASU-Jonesboro, AR, 2002-2014.
Member of L'Anguille Watershed Alliance, Wynne, AR, 2004-2005.
AR *Potamilis capax* Working Group, 2004-2008.
Breakfast, Lunch Buddies Mentoring Program, Jonesboro Public Schools, 2005-2012.
BEST Robotics, Regional volunteer and facilitator for Mathematics, Computer Sciences and Statistics, 2005-2009.
ASU Representative to Shandong University of Finance in Jinan, China for the e-commerce and e-government conference and 20th anniversary with Dr. Jeff Jenness, Computer Sciences, 2006.
ASU Student Affairs, Volunteer recruitment and presenter at Orientations, Preview Days, and campus site visits, 2008-2012.
Nettleton Intermediate Center Career Day Instructor, 2009-2014.

Trout Task Force Committee, ASU Mountain Home, 2009-2010.
Jonesboro Vision 2030 Commission member and Co-Chair, Environmental Comm. , 2010-2013.
ASU Brother to Brother mentoring program, Office of Diversity, 2010-2014.