

**CURRICULUM VITAE**  
**PETER C. SMILEY JR. (ROCKY)**

USDA-ARS Soil Drainage Research Unit  
 590 Woody Hayes Drive  
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**EDUCATION**

**Ph.D.** Forest Resources with an emphasis in Fisheries Science/Applied Ecology, Department of Wildlife and Fisheries, Mississippi State University, 2002.  
**M.S.** Biological Sciences, Department of Biology, University of Mississippi, 1993.  
**B.A.** Art and Biology, Hiram College, 1991.

**HONORS AND AWARDS**

John Reiger Award, Society for Ecological Restoration, 2011  
 Outstanding Reviewer Award, *Journal of Environmental Quality*, 2010  
 Phi Kappa Phi (National academic honor society), 2003  
 Xi Sigma Pi (National forestry honor society), 2002  
 Best Student Paper Award, Mississippi Chapter – American Fisheries Society, 2000  
 Best Student Paper Award, Mississippi Chapter - American Fisheries Society, 1995  
 James Garfield Scholarship (Academic scholarship), 1987-1991  
 Omicron Delta Kappa, 1990  
 Dean's List (Sophomore honor society), 1989  
 Alpha Lambda Delta (Freshman honor society), 1988

**GRANTS AND FUNDING SUPPORT RECEIVED**

USDA ARS Midwest Area Summer Internship Award, 2019 (\$2,000)  
 USDA ARS Midwest Area Summer Internship Award, 2015 (\$4,000)  
 USDA ARS Midwest Area Summer Internship Award, 2013 (\$4,000)  
 USDA ARS Midwest Area Summer Internship Award, 2009 (\$1,668)  
 USDA ARS Midwest Area Summer Internship Award, 2007 (\$2,366)  
 USDA ARS Midwest Area Summer Internship Award, 2006 (\$2,135)  
 Student Travel Award, Mississippi Chapter – American Fisheries Society, 2000 (\$100)  
 Co-investigator, Evaluation of Twentymile Creek Restoration Project, funded by U.S. Army Corps of Engineers, Mobile District, 1998 (\$24,394)

**RESEARCH EXPERIENCE**

**Research Ecologist:** USDA Agricultural Research Service Soil Drainage Research Unit (February 2005 – present). Developed interdisciplinary research program to provide science-based information to guide the conservation and restoration of channelized agricultural headwater streams. Headwater stream research focuses on fishes, but also includes amphibians, reptiles, aquatic insects, crayfishes, and mussels. Additional research efforts include field studies to guide the design of created agricultural wetlands to benefit fishes, amphibians, and reptiles. Additionally, serves as Chair of the Research Unit's EMS Committee and responsible for ensuring that all EMS requirements mandated by ARS, local agencies, and other federal agencies are met and for reducing the Unit's environmental impact.

**Postdoctoral Research Associate:** Mississippi State University, Department of Wildlife and Fisheries (January 2003 – October 2004). Evaluated the influence of clear cut timber harvesting and forestry best management practices) on water quality, geomorphology, instream habitat, fish communities, and macroinvertebrate communities in first-order streams within pine plantations. Also, evaluated feasibility of planting aquatic plants for shoreline restoration projects Mississippi Delta lakes.

**Dissertation Research:** Mississippi State University, Department of Wildlife and Fisheries (August 1998 – December 2002). Conducted literature review to synthesize information on the design of community level assessments of channelization and restoration projects. Also, performed field study to assess if patterns of fish and macroinvertebrate community responses to channelization were scale dependent and if channel form, instream habitat, and stream communities were hierarchically related.

**Graduate Research Assistant:** Mississippi State University, Department of Wildlife and Fisheries (August 1998 – December 2002). Conducted field studies evaluating the impacts of stream restoration and channelization projects on fish and macroinvertebrate communities.

**Biologist:** USDA Agricultural Research Service National Sedimentation Laboratory (February 1994 – September 1998). Evaluated the effectiveness of erosion control practice in habitat restoration for fish, amphibian, reptile, mammal, and bird communities within riparian habitat adjacent to channelized streams.

**Ichthyologist:** Indian Creek Fish Survey, collaboration with researchers from the University of Mississippi (October 1995 – December 1996). Baseline assessment of fish communities and habitat conditions in a second-order stream within Mississippi and Tennessee.

**Independent Contractor:** U.S. Army Corps of Engineers (October - December 1993). Assisted with writing grant proposal and capturing smallmouth buffalo for swimming performance study.

**Master's Research:** University of Mississippi, Biology Department (September 1991- December 1993). Examined the influence of photoperiod, temperature, and time of day on swimming performance of white crappie.

**Graduate Research Assistant:** University of Mississippi, Biology Department (January 1992 – December 1993): Conducted swimming performance study to determine the effect of body size, temperature, acute temperature change, and tagging on white crappie.

(Summer 1991): Collected and rough sorted macroinvertebrate samples as part of a study examining macroinvertebrate communities in freshwater wetlands.

(July 1991): Assisted with capture of bonnethead sharks for swimming performance study.

**Internship:** James H. Barrow Biological Field Station, in cooperation with the Ohio Department of Health (1990 - 1991). Compared small mammal communities from two terrestrial habitat types and collected and identified ectoparasites from captured small and medium sized mammals.

## FACULTY APPOINTMENTS

**Adjunct Assistant Professor,** Biology Department, Indiana University-Purdue University Fort Wayne (April 2013 to present).

**Adjunct Assistant Professor,** School of Environment and Natural Resources, Ohio State University (February 2006 to present).

**Affiliated Scientist**, Environmental Sciences Graduate Program, Ohio State University (February 2006 to present).

## **GRADUATE AND UNDERGRADUATE STUDENT ADVISING**

### **Co-Advisor – School of Environment and Natural Resources, Ohio State University**

*K. Rumora Masters Committee (non-thesis Masters of Environment and Natural Resources).* October 2012 to May 2014. MENR project title: Influence of grass filter strips on riparian ecosystem properties and functions.

### **Committee Member – Biology Department, Indiana University-Purdue University Fort Wayne**

*T. Shuman Masters Committee:* January 2018 to present. Thesis title: Influence of benthic sediments on macroinvertebrate community structure in agricultural headwater streams.

*J. Troy Masters Committee:* January 2018 to August 2019. Thesis title: Importance of total suspended solids in explaining fish community structure in agricultural headwater streams.

*A. Conrad Masters Committee:* February 2014 to August 2016. Thesis title: Influence of agrochemicals on riffle beetle reproduction.

*A. Taylor Masters Committee:* February 2014 to May 2016. Thesis title: Influence of fishes, water quality, and physical habitat on mussel communities within agricultural streams.

*T. Wood Masters Committee:* February 2014 to May 2016. Thesis title: Influence of habitat quality, water quality, and crayfish density on injury rates on crayfishes within agricultural streams.

*A. Castaneda Masters Committee.* July 2012 to May 2014. Thesis title: The effects of water and habitat quality on amphibians in agricultural drainage ditches.

### **Committee Member – Environmental Sciences Graduate Program, Ohio State University**

*L. Narin Masters Committee (non-thesis option).* May 2010 to March 2011. Technical paper title: Treating animal wastewater with constructed wetlands: a review.

*S. Bingham Masters Committee.* April 2007 to June 2009. Thesis title: Aquatic macroinvertebrate use of rootmat habitat created by eight woody riparian species.

*L. McGee Masters Committee.* April 2007 to June 2008. Thesis title: Effects of low-head dams on habitat structure, carbon and nitrogen allocation, and microbial activity in urban rivers.

### **Committee Member – Department of Food, Agricultural and Biological Engineering, Ohio State University**

*A. Balcerzak Masters Committee.* April 2019 to present. Thesis title: Effect of planting grass filter strips on nutrient concentrations and loads in agricultural headwater streams.

### **Honors Faculty Advisor – School of Environment and Natural Resources, Ohio State University**

*E. Gates.* December 2010 to May 2014. Honors Thesis research project title: Influence of a small instream wood addition on fishes and hydrology in channelized agricultural headwater streams in central Ohio.

### **Mentor –Student Internships (Graduate, Undergraduate, and High School):**

*D. Hutchinson.* May 2019 to August 2019. Designed internship to provide undergraduate student with research experience in snake population and community ecology, riparian habitat assessments, and stream ecology.

*D. Shafer.* May 2016 to August 2016. Designed internship to provide undergraduate student with research experience in stream fish community ecology, instream habitat assessments, and stream ecology.

*K. Seitz.* January 2016 to May 2016. Designed internship to provide graduate student with experience measuring water chemistry in the field, assisting with hydrologic measurements, and data analysis of long term water chemistry data from agricultural streams.

*M. Lauer.* May 2015 to September 2015. Designed internship to provide undergraduate student with research experience in mussel ecology and stream ecology.

*D. Shafer.* May 2015 to August 2015. Designed internship to provide undergraduate student with research experience in fish population ecology, hydrology, and stream ecology.

*B. Sommerfelt.* October 2014 to May 2015. Mentored high school senior in developing capstone project that will investigate the influence of humans on agricultural headwater streams.

*K. Rumora.* June 2013 to August 2013. Designed internship to provide graduate student with research experience in stream ecology, aquatic insect ecology, and the evaluation of conservation practices.

*E. Gates.* July 2010 to September 2010. Designed internship to provide undergraduate student with research experience in stream ecology, aquatic insect ecology, and water chemistry.

*K. Seger.* July 2009 to September 2009. Internship designed provide undergraduate student experience in conducting research, aquatic insect ecology, and water chemistry.

*C. Stritmire.* June 2007 to September 2007. Internship designed to provide undergraduate student research experience in public health aspects of aquatic insect ecology and water chemistry.

*C. Stevens.* July 2006 to September 2006. Internship designed to provide undergraduate student experience in public health aspects of aquatic insect ecology and water chemistry.

*L. Wilson.* May 2005 to August 2005. Internship to provide undergraduate student with research experience in ecology, soil science, and water chemistry.

## **TEACHING EXPERIENCE**

### **Instructor - Ohio State University**

*Use of Time Series and Mixed Effect Model Analyses for Evaluating Water Quality Trends (3 semester hours).* Fall Semester 2019. Developed and taught graduate independent study course designed to provide student with experience in the use of statistical analyses to evaluate headwater stream water chemistry responses to conservation practices.

*Statistical Analysis in Stream Ecology (3 semester hours).* Fall Semester 2016. Developed and taught graduate independent study course designed to provide student with experience in the use of statistical analysis in invertebrate habitat relationships within glacial-melt headwater streams

*Science and Management Implications of Mussel-Fish Relationships within Agricultural Streams.* (3 semester hours) Spring Semester 2016. Developed and taught undergraduate independent study course designed to provide student with an introduction to the relationships between mussels and their fish hosts within agricultural streams and to the student with experience in analyzing research data, giving a scientific presentation, and writing a scientific manuscript.

*Statistical Analysis in Stream Ecology and Environmental Education.* (3 semester hours) Spring Semester 2015. Developed and taught graduate independent study course designed to provide student with experience in the use of statistical analysis in stream ecology and environmental education.

*Communicating Ecological Research Results.* (2 quarter hours) Spring Quarter 2012. Developed and taught undergraduate independent study course designed to provide student with experience in communicating ecology research results in written and oral forms.

*Analytical Methods in Stream Ecology.* (3 quarter hours) Winter Quarter 2011. Developed and taught undergraduate independent study course designed to provide student with experience in data analysis, writing abstracts for meeting presentations, and conducting a literature review.

*Role of Instream Wood in Stream Ecology and Management.* (5 quarter hours) Fall Quarter 2011. Developed and taught undergraduate independent study course designed to provide the student with experience in conducting research, conducting a quantitative literature review, an introduction to statistical analyses, and an understanding of the role of instream wood in ecology and stream management.

*Aquatic Insect Colonization: Ecological and Public Health Implications.* (2 quarter hours) Winter Quarter 2010. Developed and taught undergraduate independent study course designed to introduce student to quantitative analytical methods and fundamental concepts in ecology of aquatic insect colonization of aquatic habitats.

*Methods in Aquatic Ecology.* (5 quarter hours) Fall Quarters 2007 and 2008. Developed and taught two week section of lectures and laboratories on methods stream ecology as part of this team taught course. Developed and graded midterm and final exams and evaluated student presentations.

*Quantitative Methods in the Ecology of Stream Fishes.* (2 quarter hours). Spring Quarter 2008. Developed and taught undergraduate independent study course designed to introduce student to quantitative analytical methods and fundamental concepts in population ecology of stream fishes.

*Multi-scaled Complexity in the Ecology of Lotic Ecosystems.* (3 quarter hours). Winter Quarter 2007. Developed and taught graduate level study course designed to introduce PhD student to concepts and issues in evaluating the influence of differently scaled factors on stream communities and ecosystems.

### **Guest Lecturer – Ohio State University**

*Environment and Natural Resources Management.* March 8, 2016. Prepared and taught lecture on career as Research Ecologist and importance of professional society involvement.

*Stream Ecology.* April 2007 - 2012. Prepared and taught lecture on importance of water chemistry in stream ecology research and management (total - six lectures)

*Natural Resource Management for Forestry, Fisheries, and Wildlife.* September to October 2006 – 2011. Prepared and taught lectures on stream habitat assessment and analyzing habitat and fish community data (total - 12 lectures)

*Survey of Environmental Science Careers.* April 2007. Prepare and taught lecture on career as a Research Ecologist with the Agricultural Research Service.

*Ichthyology.* April 2007. Prepare and taught lectures on fish skeleton, soft anatomy, respiration, ventilation, metabolic rate, and sensory systems (total – two lectures)

*Methods in Aquatic Ecology.* October 2005. Prepared and taught lecture on structure and function of lotic ecosystems.

### **Guest Lecturer – Mount Vernon Nazarene University**

*Principles of Ecology Laboratory.* September 2016, September 2017, September 2018, September 2019. Prepared and taught laboratory on stream fish sampling and identification (total - 4 field laboratories).

### **Instructor – Mississippi State University**

*Applied Aquatic and Terrestrial Ecology.* Fall semester 2003, Mississippi State University, Department of Wildlife and Fisheries. Designed and taught ecology course intended to introduce Forestry, Wildlife, and Fisheries majors to basic concepts of Ecology and their application to natural resource management. Prepared and taught lectures, developed course syllabus, proctored exams, and graded exams.

*Applied Aquatic and Terrestrial Ecology Laboratory.* Fall semester 2003, Mississippi State University, Department of Wildlife and Fisheries. Taught three sections of laboratory course designed to introduce undergraduate students to the scientific method and provide experience in conducting ecological research. Developed and taught field and lab-based ecology laboratories, developed course syllabus, advised independent research projects, evaluated student presentations, graded laboratory reports, maintained record of grades, and supervised teaching assistant.

*Introduction to Wildlife and Fisheries Practices.* July 1-2, 1999 and June 14-15, 2001, Department of Forestry and Department of Wildlife and Fisheries. Taught undergraduate forestry majors field sampling techniques for assessing fishes, macroinvertebrates, and physical habitat in streams, lakes, and wetlands as part of the aquatic ecology component of the annual Forestry Summer Field Session.

### **Guest Lecturer. Mississippi State University**

*Applied Aquatic and Terrestrial Ecology.* September 2000, October 2001, September 2004, Department of Wildlife and Fisheries. Prepared and taught lectures on ecology concepts and their application towards management of natural resources. (total - 7 lectures)

*Conceptual Ecology and Resource Management.* April 2004, Department of Wildlife and Fisheries. Administered oral examination designed to assess graduate students' knowledge of basic concepts in ecology.

*Introduction to Environmental Sciences.* November 2001, Interdisciplinary Studies. Prepared and taught lecture on Community and Restoration Ecology.

*Wildlife and Fisheries Profession.* January 1999, November 1999, September 2001, Department of Wildlife and Fisheries. Prepared lectures on involvement in professional societies, expectations and responsibilities of being a graduate student, and wetland creation. (total - 3 lectures)

*Applied Aquatic and Terrestrial Ecology Laboratory.* November 1999, Department of Wildlife and Fisheries. Taught methods of sampling fish in streams.

### **Teaching Assistant - Mississippi State University**

*Introduction to Wildlife and Fisheries.* Spring Semester 2002, Department of Wildlife and Fisheries. Proctored exams, graded exams, and maintained record of grades. Prepared and taught lecture on physical and biological characteristics of lentic and lotic ecosystems.

*Wildlife and Fisheries Practices.* Spring Semester 2002, Department of Wildlife and Fisheries. Evaluated student presentations and written management plans.

### **Guest Lecturer- University of Mississippi**

*Introduction to Biology.* September 1993.

*Human Physiology.* April 1992.

### **Teaching Assistant, University of Mississippi**

*National Science Foundation Young Scholars Program.* June 7-26, and July 12-31, 1992, Taught high school students field sampling techniques for assessment of lentic and lotic fish communities and directed their field research projects.

*Biology for Non-majors Laboratory.* Fall 1991. Taught basic concepts of Biology and laboratory skills.

## **OTHER TEACHING EXPERIENCE**

### **Instructor – Statistics Workshops**

*Conducting Linear Mixed Effect Model and Generalized Linear Mixed Effect Model Analysis with R.* 2019. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Taught 6 hour online workshop on use of R for conducting linear generalized linear mixed effect model analyses.

*Conducting Generalized Linear Model Analysis with R.* 2016. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Taught 1.5 hour online workshop on use of R for conducting generalized linear model analyses.

*Use of R for Correlation, Regression, Multiple Regression, and Mixed Model Multiple Regression Analyses.* 2015. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Taught one day workshop on use of R for correlation, simple regression, multiple regression, and mixed model multiple regression analyses.

### **Instructor – Field Safety, EMS, and Resume Workshops**

*Environmental Management Systems Training Courses.* 2011-2016. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Taught annual training course reviewing the importance of the Unit's Environmental Management Systems (EMS) and providing an overview of annual EMS goals.

*Field Safety Course.* 2005 to 2006, 2008 to 2011. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Taught basic safety concepts to consider when conducting field research.

*Resume Workshop.* February 4, 2010. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Taught workshop focused on resume design for environmental professionals.

*Field Safety course.* October 2008. All Ohio ARS Meeting, Mansfield, Ohio. Taught basic concepts of field safety to staff from four ARS Research Units.

*Preparing Job Applications.* April 2007. Stream Ecology Lab Brown Bag Lunch Series, Stream Ecology Group - Ohio State University. Taught undergraduate and graduate students basics of preparing job applications.

*Strategies for Conducting Field Research Safely.* April 2007. The Ohio State University, College of Food, Agriculture, and Environmental Sciences. Taught students basic safety concepts and strategies for conducting field research safely.

*Designing Ecological Assessments.* March 2007. Stream Ecology Lab Brown Bag Lunch Series. Stream Ecology Group - Ohio State University. Taught guidelines for designing ecological assessments to evaluate the impacts of anthropogenic habitat alterations.

*Cold Weather Safety Issues: Hypothermia and Frost Bite.* November 2006. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio. Developed 15 minute lecture to teach students symptoms of hypothermia and frost bite and how to avoid these injuries when conducting field work in cold weather.

*Strategies for Effective Presentations.* April 2006. Watershed Ecology Group Brown Bag Lunch Series – Ohio State University. Taught students strategies for effective presentations.

### **SEEDS Meeting Mentor**

Mentored student from underrepresented groups in ecology to help them obtain the full benefits of attending their first Ecological Society of America Meeting. (2007, 2008, 2009)

**Teaching Practicum.** Spring Semester 2000, Mississippi State University, Advanced Fish Ecology and Management. As part of this graduate level course I taught lectures on patch dynamics, disturbance, scale, succession/stability, and life history and led discussion of selected papers and concepts.

## **SERVICE TO SCIENTIFIC SOCIETIES AND OTHER PROFESSIONAL EXPERIENCE**

### **Leadership Positions:**

*At-Large Representative,* Board of Directors, Midwest-Great Lakes Chapter of the Society for Ecological Restoration. May 2012 to present.

*Chair,* Annual Meeting Committee, Midwest-Great Lakes Chapter of the Society for Ecological Restoration. May 2012 to present.

*Newsletter Editor,* Midwest-Great Lakes Chapter of the Society for Ecological Restoration. March 2008 to March 2014.

*Leader,* Training Course Group, Local Organizing Committee for the Society for Ecological Restoration's 2013 World Conference on Ecological Restoration. October 2012 to October 2013

*President,* Midwest-Great Lakes Chapter of the Society for Ecological Restoration. April 2009 to May 2012.

*Co-Chair,* Organizing Committee for the Midwest-Great Lakes Chapter of the Society for Ecological Restoration. Provided leadership in the establishment of a regional Chapter of an international professional society. January 2007 to April 2009.

*Faculty Advisor:* Mississippi State University Student Subunit of the Mississippi Chapter-American Fisheries Society. August 2003 – May 2004.



*President:* Mississippi State University Student Subunit of the Mississippi Chapter-American Fisheries Society. Fall 2001 – Summer 2002.

*Vice-President:* Mississippi State University Student Subunit of the Mississippi Chapter-American Fisheries Society. Fall 2000 – Summer 2001.

*Vice-President:* Biology Graduate Student Association, University of Mississippi, 1992.

**Symposium Organizer:**

Dead wood management for ecological restoration: stream and forest ecosystem perspectives. 2012 Annual Meeting of the Midwest-Great Lakes SER Chapter, Ann Arbor, Michigan. May 4, 2012.

Evaluating the influence of conservation practices on Ohio watersheds. 2006 Conservation Partnership All Employee meeting, Columbus, Ohio. March 1, 2006.

**Reviewer for Peer Review Journals** (reviewed 83 manuscripts for 43 journals from 1999 to present)

*African Journal of Aquatic Science*  
*African Journal of Environmental Science and Technology*  
*Agriculture, Ecosystems, and Environment*  
*Agronomy Journal*  
*American Midland Naturalist*  
*Biology*  
*Central European Journal of Biology*  
*Ecohydrology*  
*Ecohydrology and Hydrobiology*  
*Ecology of Freshwater Fish*  
*Environmental Biology of Fishes*  
*Environmental Health Insights*  
*Environmental Monitoring and Assessment*  
*Environmental Science and Pollution Research*  
*Environmental Science: Processes and Impacts*  
*Environmental Toxicology*  
*Environmental Toxicology and Chemistry*  
*Fisheries Management and Ecology*  
*Freshwater Biology*  
*Global Change Biology*  
*Global Ecology and Biogeography*  
*Hydrobiologia*  
*Journal of the American Water Resources Association*  
*Journal of Applied Ecology*  
*Journal of Aquatic Plant Management*  
*Journal of Ecology and Natural Environment*  
*Journal of Environmental Quality*  
*Journal of Forestry Research*  
*Journal of Freshwater Ecology*  
*Kuwait Journal of Science and Engineering*  
*Landscape and Urban Planning*  
*Neotropical Ichthyology*  
*New Zealand Journal of Marine and Freshwater Research*  
*North American Journal of Fisheries Management*  
*PLOS One*  
*River Research and Application*  
*Science of the Total Environment*

*Southeastern Naturalist*  
*Southwestern Naturalist*  
*Transactions of the American Fisheries Society*  
*Transactions of the American Society of Agricultural and Biological Engineering*  
*Water*  
*Water, Air, and Soil Pollution*

### **Proposal Peer Reviewer**

2019 - National Institute of Food and Agriculture's Exploratory Research Program of the Agriculture and Food Research Initiative  
 2019 – SER Midwest-Great Lakes Chapter Student Research and Practice Grants  
 2018 – SER Midwest-Great Lakes Chapter Student Research and Practice Grants  
 2017 – SER Midwest-Great Lakes Chapter Student Research and Practice Grants  
 2016 – SER Midwest-Great Lakes Chapter Student Research and Practice Grants  
 2008 - SEEDs Fellowship proposals  
 2008 - Michigan Sea Grant  
 2006 - Michigan Sea Grant

### **University Department Peer Reviewer**

2017 – Defiance College Restoration Ecology Major

### **Judge – Best Student Presentation Awards**

2019 Meeting of the Ecological Society of America, Louisville, Kentucky.  
 2019 Meeting of the Midwest-Great Lakes SER Chapter, Pella, Iowa.  
 2015 Meeting of the Midwest-Great Lakes SER Chapter, Glencoe, Illinois  
 2013 Meeting of the Ecological Society of America, Minneapolis, Minnesota.  
 2012 Meeting of the Midwest-Great Lakes SER Chapter, Ann Arbor, Michigan.  
 2012 Upper Midwest Stream Restoration Symposium, Minneapolis, Minnesota  
 2011 Meeting of the Midwest-Great Lakes SER Chapter, Springfield, Illinois  
 2009 Meeting of the Ecological Society of America, Albuquerque, New Mexico  
 2009 Meeting of the North American Benthological Society, Grand Rapids, Michigan  
 2008 Meeting of the Ecological Society of America, Milwaukee, Wisconsin  
 2008 Meeting of the Ohio Academy of Science, Toledo, Ohio  
 2007 Meeting of the Ecological Society of America & Society for Restoration Ecology, San Jose, California  
 2007 Meeting of the Ohio Academy of Science, Cleveland, Ohio  
 2006 Meeting of the Ecological Society of America, Memphis, Tennessee  
 2004 Meeting of the Mississippi Chapter - American Fisheries Society, Jackson, Mississippi  
 2003 Meeting of the Mississippi Chapter - American Fisheries Society, Cleveland, Mississippi

### **Session Moderator:**

2009 Management of Aquatic Systems Session II, 2009 Meeting of the North American Benthological Society, Grand Rapids, Michigan, May 18, 2009.  
 2002 Session IIIb. Joint meeting of the Mississippi and Louisiana Chapters of the American Fisheries Society, Biloxi, Mississippi. February 7, 2002.  
 2001 Inland Fisheries. Annual meeting of the Mississippi Chapter of the American Fisheries Society, February 15, 2001.  
 1997 Fish, Amphibian, and Reptile Interactions. 77<sup>th</sup> annual meeting of the American Society of Ichthyologists and Herpetologists, June 29, 1997.

**Student Coordinator of Maintenance:** James H. Barrow Biological Field Station. 1988-1991. Performed general maintenance, provided feeding and health care of the animals, assisted with establishing a grid in the Beech-Maple Forest, and assisted with building educational facilities.

## ADDITIONAL EDUCATION – COMPLETED WORKSHOPS

*Beginner's R for Analysis and Graphics.* May 2014. 2014 Joint Aquatic Sciences Meeting, Portland, Oregon.

*Decision Analysis and Design Guidance for Stream Restoration Projects.* March 2012. Partnership for River Restoration and Science in the Upper Midwest, Minneapolis, Minnesota.

*Talent Has No Boundaries. An Employers Guide to Recruiting and Retaining Individuals with Disabilities.* February 2012. Online webinar, Workforce Recruitment Program.

*Principles of Ecological Restoration.* August 2011. Society for Ecological Restoration 2011 World Conference on Ecological Restoration, Merida, Mexico.

*American Sign Language I.* February to April 2010. Columbus Speech and Hearing Center, Columbus, Ohio.

*Structural Equation Modeling.* August 2009. Annual Meeting of the Ecological Society of America, Albuquerque, New Mexico.

*Communicating Science to the Public: the Where, Why, and How of Engaging Non-Scientists.* August 2007, Joint Meeting of the Ecological Society of America and the Society for Ecological Restoration, San Jose, California.

*Show Me the Money: How to Write Successful Grant Proposals.* August 2007, Joint Meeting of the Ecological Society of America and the Society for Ecological Restoration, San Jose, California.

*Orientation to Serving College Students Who are Deaf or Hard of Hearing.* August 2006  
One hour online course. Post-Secondary Education Programs Network (PEPNet).

*Introduction to Teaching Issues and Experiments in Ecology.* August 2003, Ecological Society of America, Savannah, Georgia.

*An Introduction to Student Active Learning in Ecology.* August 2001. Ecological Society of America, Madison, Wisconsin.

## PUBLICATIONS IN PREPARATION

(student co-authors are italicized)

*Bossley, J.P. and P. C. Smiley Jr. In preparation.* Evaluating the impacts of resident outdoor education stream classes on stream quality and student educational experiences. Target Journal to be determined

*Fair-Wu, H., P.C. Smiley Jr., and R. Lanno. In revision.* Differences in invertebrate abundance among hydraulic habitat types in a glacial-melt stream: The role of hydraulics, organic matter, periphyton, and substrate. *Freshwater Biology*.

- Fair-Wu, H., P. C. Smiley Jr., and R. Lanno. **In preparation**. Invertebrate communities in monsoonal temperate glacier-melt streams of southeast Tibet: the importance of water temperature, conductivity, and turbidity. Freshwater Biology.*
- Fair-Wu, H., P. C. Smiley Jr., and R. Lanno. **In preparation**. Glacial meltwater stonefly response to water salinity. Insect Science.*
- Gates, E. and P. C. Smiley Jr. **In review**. Influence of adding small instream wood on fishes and hydrology in channelized agricultural headwater streams in central Ohio. Ecological Restoration*
- Lizotte Jr., R. E., P. C. Smiley Jr., R. B. Gillespie, and S. S. Knight. **In preparation**. Agricultural conservation practices and aquatic ecological responses: a synthesis of perspectives across ecosystem types and watersheds. Limnologica.*
- Sanders, K., P. C. Smiley Jr., R. B. Gillespie, K. W. King, and D. R. Smith. **In review**. Similarities in fish habitat relationships between channelized agricultural headwater streams in Indiana and Ohio. Journal of Environmental Quality.*
- Smiley, P. C., Jr., and E. Gates. **In preparation**. Differences in instream wood between channelized and unchannelized agricultural headwater streams in the Midwestern United States. PLOS One.*

## PEER REVIEWED PUBLICATIONS

(38 publications, student co-authors are italicized)

- Bossley, J.P. and P. C. Smiley Jr. 2019. Impact of student-induced disturbance on stream macroinvertebrates differs among habitat types. Scientific Reports 9. doi.org/10.1038/s41598-018-38210-1*
- Bossley, J.P. and P. C. Smiley Jr. 2018. Effects of student-induced trampling on aquatic macroinvertebrates in agricultural headwater streams. Water 10, 77: doi.org/10.3390/w10010077*
- Bossley, J.P. and P. C. Smiley Jr. 2017. Effects of outdoor education stream classes on substrate movement and macroinvertebrate colonization. Journal of Freshwater Ecology 32: 727-740.*
- Bossley, J.P. and P. C. Smiley Jr. 2017. Short-term disturbance effects of outdoor education classes on aquatic macroinvertebrates. Journal of Environmental Protection 8: 1333-1353.*
- Smiley, P. C., Jr., K. W. King, and N. R. Fausey. 2017. Influence of different habitat factors on the creek chub (*Semotilus atromaculatus*) population structure within channelized agricultural headwater streams. Northeastern Naturalist 24(Special Issue 8): 18-44. (Invited article as part of special issue on The Natural History of Agricultural Landscapes)*
- Jordan, M. A., A. Castañeda, A., P. C. Smiley Jr., R. B. Gillespie, D. R. Smith, and K. W. King. 2016. Influence of instream habitat and water chemistry on amphibians in channelized agricultural headwater streams. Agriculture, Ecosystems, and Environment 230:87-97.*
- Smiley, P. C., Jr., and K.R. Rumora. 2015. Planting grass filter strips: Does it influence the structure and function of riparian zones of agricultural headwater streams. Riparian Ecology and Conservation 2:58-71.*

- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2014. Annual and seasonal differences in pesticide mixtures within channelized agricultural headwater streams in central Ohio. *Agriculture, Ecosystems, and Environment* 193:83-95.
- Smiley, P. C., Jr.**, and C. M. Cooper. 2013. Small mammal habitat use within restored riparian habitats adjacent to channelized streams in Mississippi. *Journal of Environmental Protection* 4: 1280-1291.
- Knight, S. S., R. F. Cullum, F. D. Shields Jr., and **P. C. Smiley Jr.** 2012. Effects of channelization on fish biomass in river ecosystems. *Journal of Environmental Science and Engineering* A1:980-985.
- King, K. W., N. R. Fausey, R. Dunn, **P. C. Smiley Jr.**, and B. Sohngen. 2012. Response of reservoir atrazine concentrations following regulatory and management changes. *Journal of Soil and Water Conservation* 67:416-424.
- Seeger, K. R., P. C. Smiley Jr.*, K. W. King, and N. R. Fausey. 2012. Influence of riparian habitat on aquatic macroinvertebrate community colonization within riparian zones of agricultural headwater streams. *Journal of Freshwater Ecology* 27: 393-407
- Smiley, P. C., Jr.**, K. W. King, R. B. Gillespie, and N. R. Fausey. 2012. Influence of watershed scale atrazine reduction practices on pesticides and fishes within channelized agricultural headwater streams. *Journal of Sustainable Watershed Science and Management* 1: 61–75.
- Smiley, P. C., Jr.** and B. J. Allred. 2011. Differences in aquatic communities between wetlands created by an agricultural water recycling system. *Wetlands Ecology and Management* 19: 495-505.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2011. Influence of herbaceous riparian buffers on physical habitat, water chemistry, and stream communities within channelized agricultural headwater streams. *Ecological Engineering* 37: 1314-1323.
- Smiley, P. C., Jr.** and Y. D. Choi. 2010. 2010 Meeting of the Midwest-Great Lakes SER Chapter. *Ecological Restoration* 28: 417-418 (Invited article).
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2010. Public health perspectives of channelized and unchannelized headwater streams in central Ohio: a case study. *Journal of Water and Health* 8: 577-592.
- King, K. W., **P. C. Smiley Jr.**, and N. R. Fausey. 2009. Hydrology of channelized and unchannelized headwater streams in the Upper Big Walnut Creek watershed, Ohio. *Hydrological Sciences Journal* 54: 929-948.
- Smiley, P. C., Jr.**, R. B. Gillespie, K. W. King, and C. Huang. 2009. Management implications of the relationships between water chemistry and fishes within channelized headwater streams in the midwestern United States. *Ecohydrology* 2: 294-302.
- Smiley, P. C., Jr.**, S. S. Knight, F. D. Shields Jr., and C. M. Cooper. 2009. Influence of gully erosion control on amphibian and reptile communities within riparian zones of channelized streams. *Ecohydrology* 2: 303-312.

- Smiley, P. C., Jr.**, F. D. Shields Jr., and S. S. Knight. 2009. Designing impact assessments for evaluating the ecological effects of conservation practices on streams in agricultural landscapes. *Journal of the American Water Resources Association* 45: 867-878.
- King, K. W., **P. C. Smiley Jr.**, B. J. Baker, and N. R. Fausey. 2008. Validation of paired watersheds for assessing conservation practices in Upper Big Walnut Creek watershed, Ohio. *Journal of Soil and Water Conservation* 63: 380-395.
- Smiley, P. C., Jr.**, R. B. Gillespie, K. W. King, and C. Huang. 2008. Relative contributions of habitat and water quality to the integrity of fish communities in agricultural drainage ditches. *Journal of Soil and Water Conservation* 63: 218A-219A. (Invited front section article)
- Smiley, P. C., Jr.** and E. D. Dibble. 2008. Influence of spatial resolution on assessing channelization impacts on fish and macroinvertebrate communities in a warmwater stream in the southeastern United States. *Environmental Monitoring and Assessment* 138: 17-29.
- Shields, F. D., Jr., **P. C. Smiley Jr.**, and C. M. Cooper. 2007. Modifying erosion control structures for ecological benefits. *Journal of Soil and Water Conservation* 62: 157A. (Invited article)
- Smiley, P. C., Jr.**, J. D. Maul, and C. M. Cooper. 2007. Avian community structure among restored riparian habitats in northwestern Mississippi. *Agriculture, Ecosystems, and Environment* 122: 149-156.
- Smiley, P. C., Jr.** and E. D. Dibble. 2006. Evaluating feasibility of planting aquatic plants in shallow lakes in the Mississippi Delta. *Journal of Aquatic Plant Management* 44: 73-80.
- Smiley, P. C., Jr.**, E. D. Dibble, and S. H. Schoenholtz. 2006. Spatial and temporal variation of goldstripe darter abundance in first-order streams in north-central Mississippi. *American Midland Naturalist* 156: 23-36.
- Slade, J. G.*, E. D. Dibble, and **P. C. Smiley, Jr.** 2005. Relationships between littoral zone macrophytes and the fish community in four urban Minnesota lakes. *Journal of Freshwater Ecology* 20: 635-640.
- Maul, J. D., **P. C. Smiley Jr.**, and C. M. Cooper. 2005. Patterns of avian nest predators and a brood parasite among restored riparian habitats in agricultural watersheds. *Environmental Monitoring and Assessment* 108: 133-150.
- Smiley, P. C., Jr.**, and E. D. Dibble. 2005. Implications of a hierarchical relationship among channel form, instream habitat, and stream communities for restoration of channelized streams. *Hydrobiologia* 548: 279-292.
- Smiley, P. C., Jr.**, E. D. Dibble, and S. H. Schoenholtz. 2005. Fishes of first-order streams in north-central Mississippi. *Southeastern Naturalist* 4: 219-236.
- Parsons, G. R., and **P. C. Smiley Jr.** 2003. The effect of environmental changes on swimming performance of the white crappie. *Journal of Freshwater Ecology* 18: 89-96.
- Shields, F. D., Jr., **P. C. Smiley, Jr.**, and C. M. Cooper. 2002. Design and management of edge-of-field water control structures for ecological benefits. *Journal of Soil and Water Conservation* 57: 151-157.

- Smiley, P. C., Jr.**, and E. D. Dibble. 2000. Microhabitat use by an introduced crayfish (*Orconectes rusticus*) in Long Lake, Wisconsin. *Journal of Freshwater Ecology* 15: 115-123.
- Smiley, P. C., Jr.**, S. S. Knight, C. M. Cooper, and K. W. Kallies. 1999. Fish richness and abundance in created riparian habitats of channelized northern Mississippi streams. *Southeastern Fishes Council Proceedings* 39: 7-12.
- Cooper, C. M., **P. C. Smiley Jr.**, J. D. Wigginton, S. S. Knight, and K. W. Kallies. 1997. Vertebrate utilization of habitats created by installation of field-scale grade control structures. *Journal of Freshwater Ecology* 12: 199-207.
- Smiley, P. C., Jr.**, and G. R. Parsons. 1997. The effect of photoperiod and temperature on the swimming performance of white crappie. *Transactions of the American Fisheries Society* 126: 495-499.

## BOOK CHAPTERS AND EDITED BOOKS

(8 publications)

- Lenhart, C., and **P. C. Smiley Jr.** (editors). 2018. *Ecological Restoration in the Midwest: Past, Present, and Future*. University of Iowa Press.
- Lenhart, C., and **P. C. Smiley Jr.** 2018. Introduction. In C. Lenhart and P. C. Smiley Jr. (editors). *Ecological Restoration in the Midwest: Past, Present, and Future*. University of Iowa Press.
- Lenhart, C., **P. C. Smiley Jr.**, and J. Shuey. 2018. Midwestern Theory and Practices that Have Shaped the Field of Ecological Restoration. Chapter 2 in C. Lenhart and P. C. Smiley Jr. (editors). *Ecological Restoration in the Midwest: Past, Present, and Future*. University of Iowa Press.
- Lenhart, C. and **P. C. Smiley Jr.** 2018. The Emerging Role of Ecological Restoration in Agricultural Watershed Management in the Midwest. Chapter 9 in C. Lenhart and P. C. Smiley Jr. (editors). *Ecological Restoration in the Midwest: Past, Present, and Future*. University of Iowa Press.
- Smiley Jr., P. C.**, and C. Lenhart. 2018. Building on Dual Legacies of Ecological Restoration and Ecosystem Degradation. Chapter 10 in C. Lenhart and P.C. Smiley Jr. (editors). *Ecological Restoration in the Midwest: Past, Present, and Future*. University of Iowa Press.
- Smiley, P. C., Jr.**, D. P. Benson, and J. A. Harrington. 2018. Discovering the Roots of Ecology and Ecological Restoration in the Midwest. Chapter 1 in C. Lenhart and P. C. Smiley Jr. (editors). *Ecological Restoration in the Midwest: Past, Present, and Future*. University of Iowa Press.
- Migliaccio, K, R. D., Harmel, **P. C. Smiley Jr.** 2011. Surface water quality sampling in streams and canals. Chapter 5 IN Li, Y.C. and Migliaccio, K.W. (editors) *Water Quality Concepts, Sampling, and Chemical Analysis*. Taylor and Francis/CRC Press.
- Smiley, P. C., Jr.**, and R. B. Gillespie. 2010. Influence of physical habitat and agricultural contaminants on fishes in agricultural drainage ditches. Pages 37-73 IN *Agricultural Drainage Ditches: Mitigation Wetlands of the 21<sup>st</sup> Century*, M, Moore and R. Kroger (editors). Research Signpost, Kerula, India.

## PROCEEDINGS, ABSTRACTS IN PEER REVIEW JOURNALS, AND TECHNICAL REPORTS

(25 publications)

- Smiley, P. C., Jr.,** Y. D. Choi, D. P. Benson, H. Chen, C. Fleece, R. Grese, J. Lyndall, P. Rice, and D. Tilton, (editors). 2014. Connecting People and Nature with Restoration. Abstract Book of the Fourth Midwest-Great Lakes SER Chapter Meeting, May 4 to 6, 2012, Ann Arbor, Michigan. Midwest-Great Lakes Chapter of the Society for Ecological Restoration, Indianapolis, Indiana.
- Smiley, P. C., Jr.,** Y. D. Choi, D. P. Benson, H. Chen, M. J. Lemke, J. Lyndall, and K. L. Martin, (editors). 2013. Linkages between Ecological Restoration and Ecosystem Sustainability. Abstract Book of the Third Midwest-Great Lakes SER Chapter Meeting, April 1 to 3, 2011, Springfield, Illinois. Midwest-Great Lakes Chapter of the Society for Ecological Restoration, Indianapolis, Indiana.
- Smiley, P. C., Jr.** and B. J. Allred. 2012. Influence of wetland type, hydrology, and wetland destruction on aquatic communities within wetland reservoir subirrigation systems in northwestern Ohio. Technical Report # ECOL-2012-1, USDA-ARS Soil Drainage Research Unit, Columbus, Ohio.
- Smiley, P. C., Jr.,** Y. D. Choi, K. L. Martin, J. Lyndall, D. P. Benson, and H. Chen (editors). 2010. Legacies and Upstarts in Ecological Restoration in the Midwest. Abstract Book of the Second Midwest-Great Lakes SER Chapter Meeting, April 9 to 10, 2010, Madison, WI. Midwest-Great Lakes Chapter of the Society for Ecological Restoration, Indianapolis, Indiana
- Smiley, P. C., Jr.,** R. B., Gillespie, K. W., King, and C. Huang. 2009. Implications of fish-habitat relationships for developing conservation plans for channelized headwater streams in the midwestern United States. Proceedings of the Conference on Fifty years of Soil and Water Research in a Changing Agricultural Environment. USDA-ARS, Oxford, Mississippi.
- Smiley, P. C., Jr.,** J. Lyndall, B. Eddy, C. Wodrich, P. E. Rice, D. P. Benson, and H. Chen (editors). 2009. Abstract Book of the First Midwest-Great Lakes SER Chapter Meeting, April 24 to 25, 2009, Indianapolis, IN. Midwest-Great Lakes Chapter of the Society for Ecological Restoration, Indianapolis, Indiana.
- Smiley, P. C., Jr.,** S. S. Knight, F. D. Shields Jr., and C. M. Cooper. 2009. Influence of gully erosion control on amphibian and reptile communities within riparian zones of channelized streams. Proceedings of the Conference on Fifty years of Soil and Water Research in a Changing Agricultural Environment. USDA-ARS, Oxford, Mississippi.
- Smiley, P. C., Jr.** and B. J. Allred. 2008. Influence of wetland size on aquatic communities within wetland reservoir subirrigation systems in northwestern Ohio. The Ohio Journal of Science 108: A17. (Abstract published in Peer Review Journal)
- Smiley, P. C., Jr.** 2007. Aquatic macroinvertebrate communities within agricultural drainage ditches and streams of the Upper Big Walnut Creek watershed, Ohio. The Ohio Journal of Science 107: 7. (Abstract published in Peer Review Journal)
- Smiley, P. C., Jr.,** and N. R. Fausey (editors). 2006. Evaluating the influence of conservation practices on Ohio watersheds. Proceedings of the Ohio Conservation Effects Assessment Project symposium. USDA-ARS, Soil Drainage Research Unit, Columbus, Ohio.



- Dibble, E. D., S. H. Schoenholtz, and **P. C. Smiley Jr.** 2004. Effectiveness of silvicultural best management practices in protecting aquatic habitat in timber management areas. Final report to Environmental Protection Agency, Region IV, EPA Grant number: X974062-00.
- Dibble, E. D., and **P. C. Smiley Jr.** 2004. Establishment of aquatic plants in Lake Charlie Capps. Final report to Mississippi Department of Wildlife, Fisheries, and Parks.
- Knight, S. S., F. D. Shields Jr., **P. C. Smiley Jr.**, and C. M. Cooper. 2001. Comparison of fish catches from sediment damaged river ecosystems. Proceedings of Seventh Federal Interagency Sedimentation Conference. Vol I: 50 –53.
- Payne, B. S., **P. C. Smiley Jr.**, and A. C. Miller. 2001. Macroinvertebrate communities and habitat in Luxapalila Creek, Mississippi and Alabama. ERDC/EL TR-01-34, U. S. Army Engineer Research and Development Center, Vicksburg, Mississippi. 30 pp.
- Smiley, P. C., Jr.**, and E. D. Dibble. 2000. Evaluation of Twentymile Creek restoration project: (fish and habitat responses). Final report to Mobile District, U.S. Army Corps of Engineers. Project number 3523-40354. 44 pp.
- Carroll, G. D., E. D. Dibble, R. Rogers, S. Woodruff, **P. C. Smiley Jr.**, and S. L. Harrel. 1999. Water quality, physical habitat and fishes of two streams in the Bogue Homa-Leaf River drainage of the DeSoto National Forest, Chickasawhay Ranger District, MS. USDA Forest Service, Technical Report. 27 pp.
- Dibble, E. D., S. L. Harrel, and **P. C. Smiley Jr.** 1999. An evaluation of available habitat important to striped bass *Morone saxatilis* and the distribution and habitat use by other fishes in Black Creek, Mississippi. Report to U.S. Forest Service. 65 pp.
- Dibble, E. D., and **P. C. Smiley Jr.** 1999. Ecological evaluation of the streams and aquatic Communities in Vicksburg National Military Park. Annual Report 1999. 36 pp.
- Cooper, C. M., M. T. Moore, W. B. Gillespie, Jr., S. Testa III, F. D. Shields, Jr., and **P. C. Smiley, Jr.** 1998. Preliminary assessment of water quality, biological habitat, and biotic communities of the Yalobusha River Watershed. National Sedimentation Laboratory Report no. 7., USDA-ARS, National Sedimentation Laboratory, Oxford, Mississippi.
- Smiley, P. C., Jr.**, C. M. Cooper, K. W. Kallies, and S. S. Knight. 1998. Assessing habitats created by installation of drop pipes. Wetland Science Institute Wetland Assessment Information Series, no. 2, 8 pp.
- Smiley, P. C., Jr.**, S. S. Knight, C. M. Cooper, and K. W. Kallies. 1998. Fish utilization of riparian habitats created by erosion control structures. Proceedings of the Mississippi Water Resources Conference, April 7-8, 1998. Water Resources Research Institute: Mississippi State University.
- Knight, S. S., C. M. Cooper, and **P. C. Smiley Jr.** 1997. Water quality analysis of habitats created by installation of drop pipe inlets. Pages 1035-1040 in S. S. Y. Wang, E. J. Langendoen, and F. D. Shields, Jr., editors. Management of Landscapes Disturbed by Channel Incision. Center for Computation Hydroscience and Engineering, University, MS.
- Smiley, P. C., Jr.**, C. M. Cooper, K. W. Kallies, and S. S. Knight. 1997. Assessing habitats created by installation of drop pipes. Pages 903-908 in S. S. Y. Wang, E. J. Langendoen, and F. D. Shields, Jr., editors. Management of Landscapes Disturbed by Channel Incision. Center for Computation Hydroscience and Engineering, University, MS.

- Cooper, C. M., **P. C. Smiley Jr.**, J. D. Wigginton, S. S. Knight, and K. W. Kallies. 1996. Vertebrate utilization of habitats created by installation of drop pipes. Proceedings of the Sixth Interagency Sedimentation Conference vol. 2: Poster 19-22.
- Parsons, G. R. and **P. C. Smiley Jr.** 1994. Swimming performance of white crappie, *Pomoxis annularis*: The effect of environmental change. Freshwater Fisheries Report Number 136. Mississippi Department of Wildlife, Fisheries, and Parks, Jackson, MS.

## INVITED PRESENTATIONS AND SEMINARS

(22 presentations)

- Smiley Jr., P.C. and C.F. Lenhart. 2019. People and Places: the foundation for the evolution of ecological restoration in the Midwest. 2019 Wild Things Conference, Rosemont, Illinois.
- Smiley, P.C., Jr. 2018. Use of bioindicators to evaluate stream water quality. 2018 Annual Meeting of the Ohio Chapter of the Soil and Water Conservation Society, Plain City, Ohio.
- Smiley, P.C., Jr. 2016. Ecological impacts of conservation practices on agricultural headwater streams: Insights from fish and amphibian habitat relationships. USDA ARS National Soil Erosion Research Laboratory, Research Laboratory, West Lafayette, Indiana.
- Smiley, P.C., Jr. 2016. Evaluating the influence of riparian conservation and restoration practices on headwater streams. The Wilds, Cumberland, Ohio.
- Smiley, P. C., Jr. 2010. Incorporating environmental considerations into the management of agricultural drainage ditches. Environmental Sciences Graduate Program Seminar Series, the Ohio State University.
- Smiley, P. C., Jr. 2009. Influence of conservation practices on fishes in channelized headwater streams. USDA-ARS, National Soil Erosion Research Laboratory, West Lafayette, Indiana.
- Smiley, P. C., Jr., F. D. Shields Jr., S. S. Knight, R. B. Gillespie, and M. T. Moore. 2008. Effects of conservation practices on fishes, amphibians, and reptiles within agricultural streams and wetlands. Biodiversity and Agricultural Sustainability in North America Symposium, 2008 Joint Meetings of Ichthyologists and Herpetologists.
- Smiley, P. C., Jr., R. B. Gillespie, K.W. King, and C. Huang. 2007. Fishes in drainage ditches: what does it mean for the management of agricultural watersheds? 2007 Ohio Stormwater Management and Drainage Conference.
- Smiley, P. C., Jr. and L. R. Williams. 2007. Ecology and management of agricultural drainage ditches: a literature review. Symposium on Assessment and Management of Vegetated Ditch Systems for Drainage and Water Quality Goals, Soil and Water Conservation Society.
- Smiley, P. C., Jr., R. B. Gillespie, F. D. Shields Jr., and S. S. Knight. 2006. Ecological methods for assessing the influence of conservation practices on lotic ecosystems. Annual Meeting of the ARS Conservation Effects Assessment Project – Watershed Assessment Studies.
- Smiley, P. C., Jr. 2006. Perspectives on the ecology and management of agricultural drainage ditches. School of Environment and Natural Resources Seminar Series, the Ohio State University.

- Smiley, P. C., Jr. and K. W. King. 2006. Ecological evaluation of the influence of herbaceous riparian buffers on headwater agricultural drainage ditches in the Upper Big Walnut Creek watershed. Symposium on evaluating the influence of conservation practices on Ohio watersheds, Conservation Partnership All Employee Meeting. (poster presentation)
- Smiley, P. C., Jr., K. W. King, B. Baker, N. R. Fausey, C. Tennity, and B. Sohngen. 2006. Evaluating conservation practices within the Upper Big Walnut Creek watershed: water quality, ecology, soil, and economic perspectives. Symposium on evaluating the influence of conservation practices on Ohio watersheds, Conservation Partnership All Employee Meeting.
- Smiley, P. C., Jr. 2004. Influence of landscape habitat alterations on first-order streams in north-central Mississippi. Seminar, Kaskaskia, Ridge Lake, and Sam Parr Biological Stations, Illinois Natural History Survey, Sullivan, Illinois.
- Smiley, P. C., Jr. 2004. Determinants of community structure in lotic systems: perspectives from Mississippi. Seminar, Illinois River Biological Station, Illinois Natural History Survey, Havana, Illinois.
- Smiley, P. C., Jr. and E. D. Dibble. 2004. Implications of the relationships among channel form, instream habitat, and stream communities for restoration projects within channelized streams. Coastal Plains Chapter of the Society for Ecological Restoration.
- Smiley, P. C., Jr. 2004. The importance of scale when assessing community responses to stream habitat alterations. Departmental Seminar, Department of Biological Sciences, Western Illinois University.
- Smiley, P. C., Jr. 2003. Interdisciplinary approaches to monitoring stream ecosystems. Seminar, USDA-ARS, National Soil Erosion Research Laboratory, West Lafayette, Indiana.
- Smiley, P. C. Jr., J. R. Davis, S. McNamara, R. Hashim, and E. D. Dibble. 2002. Evolution and history of the Mississippi Chapter's Student Subunit of the American Fisheries Society. Annual meeting of the American Fisheries Society. (poster presentation)
- Smiley, P. C., Jr. 2002. Influence of stream habitat alterations on dynamics of aquatic communities. Departmental Seminar (dissertation defense), Department of Wildlife and Fisheries, Mississippi State University.
- Smiley, P. C., Jr.. 1993. The effect of photoperiod, temperature, and time of day on the critical swimming speed of white crappie, *Pomoxis annularis*. Departmental Seminar, Department of Biology, University of Mississippi.
- Smiley, P. C., Jr. 1991. Lyme disease and ectoparasites on small and medium sized mammals at the James H. Barrow Biological Field Station. Departmental Seminar, Biology Department, Hiram College.

## PRESENTATIONS AT SCIENTIFIC MEETINGS

(122 presentations, student co-authors are italicized)

- Shuman, T. C.*, R. B. Gillespie<sup>1</sup>, **P. C. Smiley Jr.**, and J. M. Gonzalez. 2019. What is the relative influence of bed sediment composition and water chemistry on aquatic macroinvertebrate metrics in agricultural headwater streams? Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Smiley Jr., P. C.**, *T. C. Wood*, R. B. Gillespie, J. M. Gonzalez, and K. W. King. August 2019. The role of physical, chemical, and biotic factors on crayfish injuries in agricultural headwater streams. Ecological Society of America.
- Smiley Jr., P. C.**, *T. C. Wood*, R. B. Gillespie, J. M. Gonzalez, and K. W. King. 2019. Restoration implications of the role of physical, chemical, and biotic factors on crayfish injuries in channelized agricultural headwater streams. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Shuman, T.C.*, R.B. Gillespie, and **P. C. Smiley Jr.** 2018. What is the relative influence of bed sediment chemistry on aquatic macroinvertebrate metrics? Indiana Academy of Sciences Meeting.
- Smiley Jr., P. C.**, and K. W. King. 2018. Fish community and population responses to planting grass filter strips adjacent to channelized agricultural headwater streams. American Society of Ichthyologists and Herpetologists
- Smiley Jr., P. C.**, and K. W. King. 2018. Headwater fish population responses to planting grass filter strips adjacent to channelized agricultural headwater streams. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Smiley Jr., P. C.**, and K. W. King. 2018. Influence of planting grass filter strips on headwater fish populations in channelized agricultural headwater streams in central Ohio. Upper Midwest Stream Restoration Symposium. (poster presentation).
- Smiley Jr., P. C.**, and K. W. King. 2017. A decade of evaluating the ecological effects of grass filter strips on channelized agricultural headwater streams. Midwest-Great Lakes Chapter of the Society for Ecological Restoration (poster presentation).
- Smiley Jr., P. C.**, K. W. King, N.R. Fauser, and *K.R. Rumora*. 2017. Evaluating the ability of grass filter strips to contribute to the restoration of channelized agricultural headwater streams. Upper Midwest Stream Restoration Symposium.
- Smiley Jr., P. C.**, M. A. Jordan, *A. Castañeda*, R. B. Gillespie, D. R. Smith, and K. W. King. 2016. Conservation implications of amphibian habitat relationships within channelized agricultural streams in the Midwestern United States. American Society of Ichthyologists and Herpetologists.
- Conrad, A.*, R. B. Gillespie, and **P. C. Smiley Jr.** 2016. Effects of exposure to agricultural drainage ditch water on survivorship, distribution and abundance of riffle beetles (Coleoptera: Elmidae) in headwater streams of the Cedar Creek Watershed, Indiana. Indiana Academy of Sciences Meeting.

- Lauer, M. A., P. C. Smiley Jr., K. Stillman, and W.C. Fleece.* 2016. Associations between freshwater mussels (Family Unionidae) and their host fishes within an agricultural watershed in central Ohio. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Lauer, M. A., P. C. Smiley Jr., K. Stillman, and W. C. Fleece.* 2016. Relationships between community structure of freshwater mussels and host fishes in a central Ohio watershed. Richard J. and Martha D. Denman 2016 Undergraduate Research Forum (poster presentation).
- Smiley Jr., P. C., K. Stillman, M. A. Lauer, and W.C. Fleece.** 2016. Spatial and temporal trends in freshwater mussels within an agricultural watershed in central Ohio. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Taylor, A. D., R. B. Gillespie, and P. C. Smiley Jr.* 2016. Comparison of freshwater mussel communities from 1988 to 2015 in the Cedar Creek watershed, Indiana. Indiana Academy of Sciences Meeting.
- Wood, T., R. B. Gillespie, and P. C. Smiley Jr.* 2016. Influence of instream habitat and water quality on aggressive behavior in crayfish of channelized headwater streams. Indiana Academy of Sciences Meeting.
- McCormack, M. B., J. Lyndall, L. Umek, **P. C. Smiley Jr., J. DiMisa, and L. Bregman.** 2015. Engaging and growing SER-MWGL membership while increasing membership benefits through outreach, modern communications and state-level events. Society for Ecological Restoration.
- Gillespie, R. B., **P. C. Smiley Jr., K. E. Sanders, K. W. King, and D. R. Smith.** 2015. Evaluation of the negative impacts of exposure to agricultural ditch water in fishes using streamside bioassays and field biomarkers. 2015 Indiana Academy of Sciences Meeting.
- Smiley Jr., P. C.** 2015. Evaluating conservation practices at multiple spatial scales. ARS Watershed Assessment Cropland CEAP Session, Soil and Water Conservation Society Meeting.
- Smiley Jr., P. C. and E. J. Gates.** 2015. Evaluating the feasibility of adding small instream wood as part of restoration efforts in channelized agricultural headwater streams. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Smiley Jr., P. C. and K. R. Rumora.** 2014. Influence of grass filter strips on structure and function of riparian habitats of agricultural headwater streams in central Ohio. Natural Areas Conference.
- Smiley Jr., P. C., K. W. King, and N. R. Fausey.** 2014. Relative influence of different habitat factors on creek chub population structure within channelized agricultural headwater streams in central Ohio. 2014 Joint Aquatic Sciences Meeting.
- Anderson, R. C., **P. C. Smiley Jr., J. L. Lyndall, and Y. D. Choi.** 2014. Midwest-Great Lakes SER Chapter: Who we are, what we do, and what we will do. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Gillespie, R. B., **P. C. Smiley Jr., K. E. Sanders, K. W. King, D. R. Smith, and E. A. Pappas.** 2014. Restoration implications of the results from a tiered assessment conducted to evaluate the influence of water chemistry on fishes within agricultural headwater streams. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.

- Smiley Jr., P. C., K. R. Rumora, and K. R. Seger.** 2014. Implications of the results of colonization experiments for designing riparian restoration projects adjacent to agricultural headwater streams. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Smiley Jr., P. C. and C. Lenhart.** 2014. A review of theoretical frameworks applicable for designing agricultural watershed restoration projects. Midwest Great Lakes Chapter of the Society for Ecological Restoration.
- Anderson, R. C., Y. D. Choi, **P. C. Smiley Jr.**, and J. L. Lyndall. 2013. Midwest-Great Lakes SER Chapter: Who we are, what we do, and what we will do. Society for Ecological Restoration.
- Smiley Jr., P. C., K. W. King, R. B. Gillespie, K. E. Sanders, and N. R. Fausey.** 2013. The importance of instream habitat modifications for restoring channelized agricultural headwater streams. Society for Ecological Restoration.
- Smiley Jr., P. C., K. W. King, and N. R. Fausey.** 2013. Spatial and temporal trends in pesticide mixtures within channelized agricultural headwater streams in central Ohio. Ecological Society of America
- Smiley, P. C., Jr., R.B. Gillespie, K. E. Sanders, K. W. King, and D. R. Smith.** 2013. Similarities in fish-habitat relationships within channelized streams in Ohio and Indiana. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Gates, E, and P. C. Smiley Jr.* 2013. Influence of a small instream wood addition on fishes and hydrology in channelized agricultural headwater streams in central Ohio. Richard J. and Martha D. Denman 2013 Undergraduate Research Forum (poster presentation).
- Gillespie, R. B., **P. C. Smiley Jr.**, *K. E. Sanders*, K. W. King, and D. R. Smith. 2013. Relative importance of water chemistry and habitat to fish communities in headwater streams influenced by agricultural land use. American Water Resources Spring Specialty Conference – Agricultural Hydrology and Water Quality II.
- Gates, E, and P. C. Smiley Jr.* 2013. Influence of a small instream wood addition on fishes and hydrology in channelized agricultural headwater streams in central Ohio. College of Food, Agriculture, and Environmental Sciences Undergraduate Research Forum, the Ohio State University. (poster presentation).
- Smiley, P. C., Jr., R.B. Gillespie, J.M. Gonzalez, K. W. King, and D. R. Smith.** 2013. Implications of fish-habitat relationships for designing restoration projects within channelized agricultural streams. 2013 Upper Midwest Stream Restoration Symposium.
- Smiley, P. C., Jr. and E. Gates.** 2012. Importance of instream wood characteristics for developing restoration designs for channelized agricultural headwater streams. EcoSummit 2012 (poster presentation).
- Gates, E, and P. C. Smiley Jr.* 2012. Differences in instream wood characteristics between channelized and unchannelized agricultural headwater streams in central Ohio. Richard J. and Martha D. Denman 2012 Undergraduate Research Forum (poster presentation).
- Lizotte R.E., Jr., S. S. Knight, **P. C. Smiley Jr.**, R. R. Lowrance, G. Vellidis, and R. B. Gillespie. 2012. Associations between conservation practices and ecology: ecological responses of agricultural streams and lakes. Soil and Water Conservation Society.

- Smiley, P. C., Jr.** and *E. Gates*. 2012. Characteristics of instream wood within channelized agricultural headwater streams in the Midwestern United States. Midwest-Great Lakes Chapter of the Society for Ecological Restoration.
- Smiley, P. C., Jr.** and *E. Gates*. 2012. Using instream wood characteristics to guide the restoration of agricultural headwater streams. 2012 Upper Midwest Stream Restoration Symposium
- King, K.W., **P. C. Smiley Jr.**, E. N. Fischer, and N. R. Fausey. 2011. Impact of buffer type on streamside nutrient concentrations in Upper Big Walnut Creek, Ohio. American Society of Agricultural and Biological Engineers.
- Smiley, P. C., Jr.**, K. W. King, R. B. Gillespie, and N. R. Fausey. 2011. Influence of watershed pesticide management on channelized agricultural headwater streams. Society for Ecological Restoration.
- Smiley, P. C., Jr.**, J. Lyndall, and H. Chen. 2011. Promoting ecological restoration within the Midwestern United States. Society for Ecological Restoration (poster presentation).
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2011. Evaluating effectiveness of grass filter strips in restoring degraded agricultural streams in central Ohio. Midwest-Great Lakes Chapter of the Society for Ecological Restoration (poster presentation).
- Castaneda, A.*, R. B. Gillespie, **P. C. Smiley Jr.**, and M. A. Jordan. 2010. The effects of water and habitat quality on amphibian assemblages in two Midwest watersheds. Midwest Partners in Amphibian and Reptile Conservation.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2010. Influence of herbaceous filter strips on physical habitat, water chemistry, and fish communities within channelized headwater streams in central Ohio. Ecological Society of America.
- Smiley, P. C., Jr.** and B. J. Allred. 2010. Design and management criteria for fish, amphibian, and reptile communities in created agricultural wetlands. American Society of Ichthyologists and Herpetologists.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2010. Influence of herbaceous riparian buffers on fish and amphibian communities within channelized headwater streams in central Ohio. American Society of Ichthyologists and Herpetologists.
- Seger, K. R.*, and **P. C. Smiley Jr.** 2010. Influence of canopy cover and nutrients on aquatic communities within headwater stream riparian zones. Richard J. and Martha D. Denman 2010 Undergraduate Research Forum (poster presentation).
- Seger, K.R.*, and **P. C. Smiley Jr.** 2010. Influence of riparian habitat and nutrients on aquatic communities within riparian zones of headwater streams. College of Food, Agriculture, and Environmental Sciences Undergraduate Research Forum, the Ohio State University. (poster presentation).
- Smiley, P. C., Jr.** and B. J. Allred. 2010. Differences in fish, amphibian, and reptile communities within wetlands created by agricultural water recycling system in northwestern Ohio. Midwest-Great Lakes Chapter of the Society for Ecological Restoration (poster presentation).

- Gillespie, R. B., **P. C. Smiley Jr.**, K. W. King, and C. Huang. 2009. Ecological assessments of fish communities in drainage ditches of two midwest watersheds in support of the Conservation Effects Assessment Project. Society for Environmental Toxicology and Chemistry.
- Choi, Y. D., **P. C. Smiley Jr.**, and J. Lyndall. 2009. Guidance for establishing a regional SER chapter. Society for Ecological Restoration. (poster presentation)
- Smiley, P. C., Jr.** and B. J. Allred. 2009. Differences in aquatic communities within wetland reservoir subirrigation systems in northwestern Ohio. Ecological Society of America.
- King, K. W., N. R. Fausey, and **P. C. Smiley Jr.** 2009. Temporal variability of nitrogen and phosphorus transport in subsurface drainage. Soil and Water Conservation Society.
- Smiley, P. C., Jr., F. D. Shields Jr., S. S. Knight, R. B. Gillespie, and M. T. Moore. 2009. Effects of conservation practices on fishes within agricultural watersheds. Soil and Water Conservation Society.
- King, K. W., N. R. Fausey, and **P. C. Smiley Jr.** 2009. Watershed scale nitrogen and phosphorus partitioning between surface and subsurface drainage waters. American Society of Agricultural and Biological Engineering.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2009. Influence of herbaceous riparian buffers on channelized headwater streams in central Ohio. North American Benthological Society.
- Gillespie, R. B., **P. C. Smiley Jr.**, T. S. Harkenrider, and D. J. Deegan. 2009. Biological and ecological impacts of agricultural contaminants on aquatic organisms in Cedar Creek watershed, Indiana. USDA-ARS, National Soil Erosion Research Laboratory, West Lafayette, Indiana.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2009. Use of unchannelized agricultural streams as a guiding image for restoring agricultural drainage ditches. Midwest-Great Lakes Chapter of the Society for Ecological Restoration. (poster presentation)
- Gillespie, R. B., **P. C. Smiley Jr.**, K. W. King, C. Huang. 2008. Relationships among macroinvertebrate community variables and water quality parameters in modified agricultural receiving streams in the midwestern United States. National Sedimentation Laboratory 50<sup>th</sup> Anniversary Conference. Fifty Years of Soil and Water Research in a Changing Agricultural Environment.
- McGee, L. E.*, V. Bouchard, and **P. C. Smiley Jr.** 2008. Do low-head dam reservoirs alter nitrogen and methane processing in riverine ecosystems. Ecological Society of America.
- Smiley, P. C., Jr.**, R. B. Gillespie, K. W. King, and C. Huang. 2008. Implications of fish-habitat relationships for developing conservation plans for channelized headwater streams in the midwestern United States. National Sedimentation Laboratory 50<sup>th</sup> Anniversary Conference. Fifty Years of Soil and Water Research in a Changing Agricultural Environment.
- Smiley, P. C., Jr.**, S. S. Knight, F. D. Shields Jr., and C. M. Cooper. 2008. Influence of gully erosion control on amphibian and reptile communities within riparian zones of channelized streams. 50<sup>th</sup> anniversary of the National Sedimentation Laboratory



- Smiley, P. C., Jr.**, R. B. Gillespie, K. W. King, and C. Huang. 2008. Comparing the influence of different habitat factors on fish communities in channelized headwater streams in Indiana and Ohio. Ecological Society of America.
- Gillespie, R. B., **P. C. Smiley Jr.**, K. W. King, C. Huang. 2008. Relationships of macroinvertebrate communities with nutrients, pesticides, and physicochemical parameters in channelized headwater streams in Indiana and Ohio. American Society of Limnologists and Oceanographers Summer Meeting.
- Smiley, P. C., Jr.**, R. B. Gillespie, K. W. King, and C. Huang. 2008. Relationships between water chemistry and fish communities within channelized headwater streams in the midwestern United States. American Society of Limnologists and Oceanographers Summer Meeting.
- Pritt, J.*, **P. C. Smiley Jr.**, and L.R. Williams. 2008. Responses of orangethroat darter populations to habitat differences in a central Ohio headwater stream. Richard J. and Martha D. Denman 2008 Undergraduate Research Forum (poster presentation).
- Pritt, J.*, **P. C. Smiley Jr.**, and L.R. Williams. 2008. Orangethroat darter population responses to habitat differences within a central Ohio headwater stream. College of Food, Agriculture, and Environmental Sciences Undergraduate Research Forum, the Ohio State University. (**3<sup>rd</sup> place Environmental Sciences Category**, poster presentation).
- Smiley, P. C., Jr.** and B. J. Allred. 2008. Influence of wetland size on aquatic communities within wetland reservoir subirrigation systems in northwestern Ohio. Ohio Academy of Sciences.
- McGee, L. E.*, V. Bouchard, and **P. C. Smiley Jr.** 2007. The impact of low-head dams on riverine and riparian nitrogen dynamics. Joint Meeting of the Ecological Society of America and the Society for Ecological Restoration.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2007. Developing restoration strategies for channelized headwater streams in a central Ohio watershed. Joint Meeting of the Ecological Society of America and the Society for Ecological Restoration.
- Dibble, E. D., and **P. C. Smiley Jr.** 2007. Evaluating the feasibility of planting aquatic plants for habitat restoration in shallow Mississippi lakes. Aquatic Plant Management Society.
- King, K. W., **P. C. Smiley Jr.**, N. R. Fausey, B. J. Baker. 2007. Validation of paired watersheds for assessing conservation practices in Upper Big Walnut Creek Watershed, Ohio. Soil and Water Conservation Society.
- Gillespie, R. B., **P. C. Smiley Jr.**, K. W. King, and C. Huang. 2007. The relative contributions of habitat quality and water quality to the integrity of aquatic communities in agricultural drainage ditches. Soil and Water Conservation Society.
- Smiley, P. C., Jr.**, F. D. Shields Jr., and S. S. Knight. 2007. Designing sampling protocols for evaluating ecological effects of conservation practices on agricultural streams. Soil and Water Conservation Society.
- Smiley, P. C., Jr.** 2007. Aquatic macroinvertebrate communities within agricultural drainage ditches and streams of the Upper Big Walnut Creek watershed, Ohio. Ohio Academy of Science. (poster presentation)

- Smiley, P. C., Jr.** and L. R. Williams. 2006. Ecology and management of agricultural drainage ditches: a literature review. Water Management Association of Ohio.
- Smiley, P. C., Jr.**, F. D. Shields Jr., and S. S. Knight. 2006. Designing stream sampling protocols for measuring ecological effects of conservation practices. Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base.
- Smiley, P. C., Jr.** K. W. King, and N. R. Fausey. 2006. An experimental approach to assess the influence of nutrient and pesticide practices on headwater agricultural watersheds in central Ohio. Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base. (poster presentation)
- Smiley, P. C., Jr.** and K. W. King. 2006. Fish-habitat relationships in drainage ditches within a predominantly agricultural watershed in central Ohio. Ecological Society of America.
- King, K. W., **P. C. Smiley Jr.**, and N. R. Fausey. 2006. Hydrology, water chemistry, and ecology of headwater watersheds within the Upper Big Walnut Creek, Ohio. Annual Meeting of the ARS Conservation Effects Assessment Project – Watershed Assessment Studies.
- Dibble, E. D., and **P. C. Smiley Jr.** 2006. Evaluating the feasibility of planting aquatic plants in shallow Mississippi lakes. NALMS 15th Annual Southeastern Lake and Watershed Management Conference.
- King, K. W., **P. C. Smiley Jr.**, and N. R. Fausey. 2006. Hydrology and water chemistry responses to conservation practices and land use within the Upper Big Walnut Creek watershed. Symposium on evaluating the influence of conservation practices on Ohio watersheds, Conservation Partnership All Employee Meeting. (poster presentation)
- Dibble, E. D., and **P. C. Smiley Jr.** 2006. Evaluating the feasibility of planting aquatic plants for habitat restoration in shallow Mississippi lakes. Joint Meeting of the Mississippi and Louisiana Chapters of the American Fisheries Society.
- Dibble, E. D., and **P. C. Smiley Jr.** 2005. Evaluating the feasibility of planting aquatic plants in shallow Mississippi lakes. NALMS 2005: 25th International Symposium Lake Effects: Exploring the Relationship between People and Water.
- King, K. W., **P. C. Smiley Jr.**, B. J. Baker, and N. R. Fausey. 2005. Assessing the impact of conservation management practices on water and soil quality in Upper Big Walnut Creek Watershed. American Society of Agricultural Engineers.
- Smiley, P. C., Jr.**, E. D. Dibble, and S. H. Schoenholtz. 2005. Influence of forestry best management practices on fish communities in first-order streams in north-central Mississippi. American Society of Ichthyologists and Herpetologists.
- Smiley, P. C., Jr.**, K. W. King, and N. R. Fausey. 2005. Evaluating habitat and fish community responses to conservation practices in headwater streams of the Upper Big Walnut Creek. American Society of Ichthyologists and Herpetologists. (poster presentation)
- Smiley, P. C., Jr.** and E. D. Dibble. 2005. Evaluating the feasibility of planting aquatic plants as part of lake restoration projects in Mississippi. American Ecological Engineering Society.

- King, K. W., **P. C. Smiley Jr.**, and N. R. Fausey. 2005. Watershed Report - Upper Big Walnut Creek, Ohio. Annual Meeting of the ARS Conservation Effects Assessment Project – Watershed Assessment Studies.
- Slade, J. G.*, E. D. Dibble, and **P. C. Smiley Jr.** 2005. Relationships between macrophyte and fish communities of east-central Minnesota lakes. Mississippi Chapter of the American Fisheries Society. (poster presentation)
- Slade, J. G.*, E. D. Dibble, and **P. C. Smiley Jr.** 2004. Multi-scale relationships between littoral zone macrophyte and fish communities of east-central Minnesota. Midsouth Aquatic Plant Management Society.
- Smiley, P. C., Jr.**, E. D. Dibble, and S. H. Schoenholtz. 2004. Patterns of goldstripe darter abundance in first-order streams within managed pine plantations in north-central Mississippi. American Society of Ichthyologists and Herpetologists.
- Dibble, E. D., **P. C. Smiley Jr.**, and S. H. Schoenholtz. 2004. Effect of forest disturbance on first-order stream communities in the southeast: a landscape manipulation. Watershed Restoration Symposium. Northeast Fish and Wildlife Conference.
- Smiley, P. C., Jr.** E. D. Dibble, and S. H. Schoenholtz. 2004. Characteristics of fish communities from first-order streams in north-central Mississippi. Mississippi Chapter of American Fisheries Society.
- Dibble, E. D., **P. C. Smiley, Jr.** and S. H. Schoenholtz. 2003. Forest disturbance and the stream community: a landscape manipulation. Nucleo de Pesquisa em Limnologia, Ictiologia e Aquicultura, Universidade Estadual de Maringa, Brazil.
- Smiley, P. C., Jr.** and E. D. Dibble. 2003. Time for a change: design of community level assessments of stream restoration and channelization projects. Society for Ecological Restoration.
- Smiley, P. C., Jr.** and E. D. Dibble. 2003. Influence of spatial resolution and community extent on patterns of community structure within a channelized stream in Mississippi and Alabama. Ecological Society of America.
- Smiley, P. C., Jr.** and E. D. Dibble. 2003. Relationships among channel form, instream habitat, and aquatic communities in a channelized stream. Mississippi Chapter of American Fisheries Society.
- Smiley, P. C., Jr.** J. R. Davis, S. McNamara, R. Hashim, and E. D. Dibble. 2002. Evolution and history of the Mississippi Chapter's Student Subunit of the American Fisheries Society. Midyear meeting of the Southern Division of the American Fisheries Society. (poster presentation)
- Smiley, P. C., Jr.** J. R. Davis, S. McNamara, R. Hashim, and E. D. Dibble. 2002. Mississippi Chapter's Student Subunit of the American Fisheries Society. Mississippi and Louisiana Joint Chapter Meeting, American Fisheries Society. (poster presentation)
- Knight, S. S., F. D. Shields Jr., **P. C. Smiley Jr.**, and C. M. Cooper. 2001. Comparison of fish catches from sediment damaged river ecosystems. Seventh Federal Interagency Sedimentation Conference.

- Smiley, P. C., Jr.**, E. D. Dibble, and A. C. Miller. 2001. Interrelationships among channel form, instream habitat, and aquatic communities. Ecological Society of America (poster presentation)
- Smiley, P. C., Jr.** 2001. From succession to disturbance and patch dynamics: a discussion of A. S. Watt's "Pattern and Process in the Plant Community". Departmental Seminar, Department of Wildlife and Fisheries, Mississippi State University.
- Smiley, P. C., Jr.** E. D. Dibble, and A. C. Miller. 2001. Channel and instream habitat characteristics within a channelized stream. Mississippi Chapter of American Fisheries Society. (poster presentation)
- Smiley, P. C., Jr.**, and E. D. Dibble. 2000. Temporal variation of fish and physical habitat within a newly restored reach of Twentymile Creek. Mississippi Chapter of American Fisheries Society.
- Smiley, P. C., Jr.**, and E. D. Dibble. 2000. Influence of instream habitat structures on fish and habitat within Twentymile Creek. Mississippi Chapter of American Fisheries Society. (poster presentation)
- Dibble, E. D., and **P. C. Smiley Jr.** 1999. Fish and habitat responses to installation of instream habitat structures. Society for Ecological Restoration. (poster presentation)
- Smiley, P. C., Jr.** C. M. Cooper, J. D. Maul, and S. S. Knight. 1998. Comparison of small mammal and bird communities within impacted and created riparian habitats. Joint Meeting of American Society of Limnology and Oceanography and Ecological Society of America.
- Smiley, P. C., Jr.**, S. S. Knight, C. M. Cooper, and K. W. Kallies. 1998. Fish utilization of riparian habitats created by erosion control structures. Mississippi Water Resources Conference.
- Smiley, P. C., Jr.**, S. S. Knight, and C. M. Cooper. 1998. Watershed evaluation of the Upper Yalobusha River: Fishes. Mississippi and Louisiana Joint Chapter Meeting, American Fisheries Society
- Adams, S. R., G. R. Parsons, and **P. C. Smiley Jr.** 1997. Fishes of Indian Creek, Wolf River drainage. Mississippi Chapter of the American Fisheries Society.
- Knight, S. S., C. M. Cooper, and **P. C. Smiley Jr.** 1997. Water quality analysis of habitats created by installation of drop pipes. Conference on Management of Landscapes Disturbed by Channel Incision.
- Smiley, P. C., Jr.** C. M. Cooper, K. W. Kallies, and S. S. Knight. 1997. Assessing habitats created by installation of drop pipes. Conference on Management of Landscapes Disturbed by Channel Incision.
- Smiley, P. C., Jr.**, Jr., K. W. Kallies, S. S. Knight, and C. M. Cooper. 1997. Fishes, amphibians, and reptiles of habitats created by erosion control structures. 77<sup>th</sup> annual meeting of the American Society of Ichthyologists and Herpetologists.
- Smiley, P. C., Jr.** S. S. Knight, and C. M. Cooper. 1997. The effect of pool area, depth, and season on fish communities within created habitats. Mississippi Chapter of the American Fisheries Society
- Smiley, P. C., Jr.**, S. S. Knight, and C. M. Cooper. 1996. The fishes of drop pipe created habitats. 76<sup>th</sup> annual meeting of the American Society of Ichthyologists and Herpetologists.

Cooper, C. M., **P. C. Smiley Jr.**, J. D. Wigginton, S. S. Knight, and K. W. Kallies. 1996. Vertebrate utilization of habitats created by installation of drop pipe inlets. Sixth Interagency Sedimentation Conference. (poster presentation)

**Smiley, P. C., Jr.** S. S. Knight, and C. M. Cooper. 1996. Ichthyofauna of wetland habitats created by installation of drop pipes. Joint meeting of the Mississippi and Tennessee Chapter of the American Fisheries Society.

Adams, S. R., G. R. Parsons, and **P. C. Smiley Jr.** 1995. Swimming performance of the smallmouth buffalo, *Ictiobus bubalus*. American Fisheries Society.

Adams, S. R., G. R. Parsons, and **P. C. Smiley Jr.** 1995. Swimming performance of the smallmouth buffalo, *Ictiobus bubalus*. Mississippi Chapter of the American Fisheries Society.

**Smiley, P. C., Jr.**, and G. R. Parsons. 1995. The effect of photoperiod, temperature, and tagging on the critical swimming speed of white crappie, *Pomoxis annularis*. Mississippi Chapter of the American Fisheries Society.

## INVITED PRESENTATIONS FOR WATERSHED GROUPS AND OTHER STAKEHOLDERS

(18 presentations)

Community ecology, biomarkers, and ecotoxicology - interdisciplinary insights for understanding the influence of agricultural conservation practices on channelized agricultural headwater streams. Berne Indiana Rotary Club, June 7, 2016

Influence of planting grass filter strips on the structure and function of riparian habitats of channelized agricultural headwater streams within the Upper Big Walnut Creek watershed, Ohio. Upper Big Walnut Creek Water Quality Partnership, October 7, 2014.

Designing sampling protocols for ecological evaluation of agricultural watersheds. Watershed Management Section Division of Power and Water Department of Public Utilities City of Columbus (Ohio). August 16, 2010.

Conservation Effects Assessment Project: Preliminary Results from the Upper Big Walnut Creek Watershed, Ohio. 2010 Annual Meeting of the Ohio-Kentucky-Indiana Regional Conservation Council. March 30, 2010.

Ecological effects of conservation practices on agricultural streams and wetlands. USDA-ARS "Its Your Water" Showcase, March 3, 2010. (poster presentation)

Towards the development of novel management strategies for managing agricultural drainage ditches. North Central Extension and Research Association 207 Annual Meeting, April 1, 2009.

Differences in aquatic communities and pesticides between WRSIS wetlands and reservoirs. Wetland-Reservoir-Subirrigation Systems Working Group, February 2009.

Implications of fish-habitat relationships within agricultural drainage ditches for the assessment of conservation practices. Upper Big Walnut Creek Partnership, December 6, 2007.

Ecology of drainage ditches within the Upper Big Walnut Creek watershed: implications for water quality management. Ohio EPA, July 30, 2007.

Ecological and Public Health Perspectives on Headwater Streams in the Upper Big Walnut Creek Watershed. Delaware County Streams and Watersheds Committee. March 28, 2007.

Characteristics of headwater ditches and streams within the Upper Big Walnut Creek watershed, Ohio. Farmers Share Breakfast, Delaware, OH. March 17, 2007. (poster presentation).

Fishes in agricultural drainage ditches in Ohio. 2006 Annual Northwest Ohio Drainage Expo. August 17, 2006.

Ecological methods of evaluating drainage ditches. 2006 Annual Northwest Ohio Drainage Expo. August 17, 2006. (field demonstration).

Aquatic ecology research within agricultural drainage ditches in the Upper Big Walnut Creek watershed. Farmers Share Breakfast, Delaware, OH. March 2006. (poster presentation)

Connections between water quality and agricultural drainage ditches. Ohio DNR Division of Soil and Water, Rural Drainage Ditch Advisory Committee. January 12, 2006.

Ecological evaluation of agricultural drainage ditches and created wetlands. Ohio Land Improvement Contractors Association. January 4, 2006.

Development of alternative designs for agricultural wetlands. Upper Big Walnut Creek Partnership. December 15, 2005.

Monitoring methods for assessing fish and macroinvertebrate responses to forestry best management practices. Southern Best Management Practices Foresters. May 14, 2003.

## **PROFESSIONAL ORGANIZATIONS**

Midwest-Great Lakes Chapter of the Society for Ecological Restoration  
Society for Ecological Restoration  
Partnership for River Restoration and Science in the Upper Midwest

## **EXTRACURRICULAR ACTIVITIES**

Susan G. Komen Race for the Cure, 2010-2012.  
Oxford-University Hash House Harriers, 1998-2005  
Mississippi State Intramural Flag Football, 1999  
Ole Miss Intramural Soccer, 1993  
Ole Miss Rugby Club, 1991-1993  
Hiram Rugby Club, 1988-1991  
Hiram College Student Senate, 1988-1990  
Intercollegiate NCAA Varsity Athletics: Hiram College Football: 1987-1991; Track: 1988