

# Joseph Gerken

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## Summary

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- Quantitative fisheries scientist with strong written and oral communication skills
- Lead Instructor for 30+ sections of collegiate level scientific classes
- Successfully planned, coordinated, and implemented numerous collaborative scientific studies including stock assessment, population demographics, and community ecology
- Strong background in business leadership and media content management

## Education

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Ph.D., Biology May 2015

**Kansas State University** – Manhattan, Kansas

Dissertation Title: Fish and Invertebrate Community Response to Flow  
 Magnitude in the Kansas River

M.S., Biology December 2007

**University of Central Arkansas** – Conway, Arkansas

Thesis Title: Habitat use and Population Demographics of Cave-Dwelling Grotto  
 Sculpin (*Cottus specus*)

B.S., Zoology May 2005

**Miami University** – Oxford, Ohio

## Experience

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**Aquatic Extension Specialist & Instructor** February 2021 - Present

Kansas State University – Manhattan, KS

Summary: Consult with extension agents and stakeholders about concerns in Kansas ponds.  
 Teach classes in Wildlife & Outdoor Enterprise Management (WOEM) program.  
 Advise students and student clubs related to WOEM.

**Assistant Professor** August 2015 – August 2017

Santa Fe College – Gainesville, Florida

Summary: Developed and implemented course material for 120 students each semester.  
 Communicated complex biological processes to a diverse group of students.  
 Both in-class and online teaching of Anatomy and Physiology courses.

**Research Associate** August 2014 – August 2015  
University of Florida – Gainesville, Florida

Summary: Supported a diverse group of scientists with statistical programming and data management needs.  
Developed detailed technical documentation for a interdisciplinary users.

**Adjunct Professor** January 2015 – August 2015  
Santa Fe College – Gainesville, Florida

Summary: Construct and deliver course content for 60 students.

**Graduate Research Assistant** January 2008 – December 2013  
Kansas State University – Manhattan, Kansas

Project: Recruitment of Large-River Fishes in the Kansas River  
Summary: Planned and implemented research examining relationship between fish recruitment patterns and environmental conditions.  
Analyzed, interpreted, and presented results in various forums including peer-reviewed publications, government reports, and scientific meeting presentations.

**Graduate Research Assistant** August 2005 – December 2007  
University of Central Arkansas – Conway, Arkansas

Project: Habitat Use of Cave-Dwelling Grotto Sculpin  
Summary: Worked closely with Missouri Department of Conservation and cave conservation groups to examine habitat use patterns of cave dwelling grotto sculpin.  
Collaborated with numerous scientists to analyze data and present findings in written and oral formats.

## Teaching Experience

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### INSTRUCTOR OF RECORD

**Kansas State University** – Manhattan, Kansas August 2021 - Present  
Bowhunting Equipment & Skills (WOEM 203)

- Lead safe instruction of bowhunting equipment, skills, and techniques
- Organized visits to local bow shop and private land to enhance student learning

Introduction to Wildlife & Outdoor Enterprise Management (WOEM 250)

- Developed material to enhance student success at the college level
- Provided instruction, guest lectures, and assignments to actively engage students

Fauna & Flora of the Great Plains (WOEM 350)

- Co-taught class including lectures and labs on fish and mammals of the Great Plains
- Lead live animal trapping and identification labs

**Santa Fe College** - Gainesville, Florida January 2015 – August 2017  
Human Anatomy and Physiology (BSC 2085)

- Instructed 4 sections of Human Anatomy and Physiology each semester
- Developed instruction for all lecture and laboratory material

**Ozarks Technical Community College** – Springfield, Missouri      January 2013 – May 2013  
Human Anatomy and Physiology (BCS 145)

- Instructed multiple sections of Human Anatomy and Physiology
- Developed and organized all instruction and assessment material

**Kansas State University** – Manhattan, Kansas      August 2011– December 2011  
Fisheries Management and Techniques (BIOL 696)

- Lead Instructor for Junior/Senior level Biology course
- Designed class material including field-based laboratory exercises
- Required class papers and presentations that resulted in student co-authored manuscript and presentation at scientific meeting

### TEACHING ASSISTANT

**Kansas State University** – Manhattan, Kansas      January 2012 – May 2012  
Organismic Biology (BIOL 201)

- Instructed students in laboratory for first-year Biology Majors

Physiological Adaptations of Animals (BIOL 514)      August 2009 – December 2009

- Assisted with lab set-up, organization, and instructions

Organismic Biology (BIOL 201)      January 2008 – May 2009

- Co-Taught laboratory for first-year Biology Majors

**University of Central Arkansas** – Conway, Arkansas      August 2006 – December 2007  
Human Anatomy and Physiology (BIOL 2405)

- Developed laboratory material including instruction and assessments.

Introductory Biology (BIOL 1400)      August 2005 – May 2006

- Instructed sections of laboratory for classes of 35 undergraduate non-majors

## Professional Publications

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### INVITED BOOK CHAPTER

Gerken, J.E. and C.P. Paukert. (2009). Threats to Paddlefish habitat. Pages 173-183 in: C. Paukert and G. Scholten, editors, Paddlefish Management, Propagation, and Conservation in the 21st Century: Building from 20 years of Research and Management. American Fisheries Society, Bethesda, Maryland 443 pages.

### PEER REVIEWED (\* Indicates Advised Undergraduate Student)

Kirpich, A.S., Ibarra, M., Moskalenko, O., Fear, J.M., Gerken, J., Mi, X., Ashrafi, A., Morse, A.M., and McIntyre, L.M. (2018). SECIMTools: a suite of metabolic data analysis tools. BMC Bioinformatics. 19(1): 151

Costigan, K.H. and J.E. Gerken. (2016). Channel Morphology and Flow Structure of an Abandoned Channel Under Varying Stages. Water Resources Research. 52(7): 5458-5472.

Perkin, J.S., M. J. Troia, D.C.R. Shaw\*, J.E. Gerken, and K.B. Gido. (2015). Multiple watershed

alterations influence fish community structure in Great Plains prairie streams. *Ecology of Freshwater Fish*. 25(1): 141-155.

Day, J.L., Gerken, J.E., and G.L. Adams. (2015). Population ecology and seasonal demography of the endangered grotto sculpin (*Cottus specus*). *Ecology of Freshwater Fish*. 25:27-37.

Day, J., D.E. Starkey, and J.E. Gerken. (2013). Prevalence of parasitism in the Grotto Sculpin (*Cottus specus*), a new species of cave-adapted fish from southeastern Missouri, USA. *Subterranean Biology* 12:3-14.

Gerken, J.E. and C.P. Paukert. (2013). Fish assemblage and habitat factors associated with the distribution of Topeka shiner (*Notropis topeka*) in Kansas streams. *Journal of Freshwater Ecology* 28:503-516.

Dodds, W.K., J.S. Perkin, and J.E. Gerken. (2013). Human impact on freshwater ecosystems: a global perspective. *Environmental Science and Technology* 47:9061-9068.

Perkin, J.S., Z.R. Shattuck, J.E. Gerken, and T.H. Bonner. (2013). Fragmentation and drought legacy correlate with distribution of Burrhead Chub in subtropical streams of North America. *Transactions of the American Fisheries Society* 142:1287-1298.

\*White, K, J.E. Gerken, C. Paukert, and A. Makinster. (2010). Fish community structure in natural and engineered habitats in the Kansas River. *River Research and Applications* 26:797-805.

Gerken, J.E. and G.L. Adams. (2008). Habitat use of grotto sculpin (*Cottus carolinae*) a troglomorphic fish in Perry County, Missouri. *Proceedings of the National Cave and Karst Management Symposium* 2008:74-78.

## Grants Received

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2009: Paukert, C.P., M. Daniels, and J.E. Gerken – Seasonal Fish Assemblages and Habitat Near Bowersock Dam: Implications for Fish Passage. Kansas Department of Wildlife and Parks, Agency Peer Review. (\$95,931)

2008: Paukert, C.P. and J.E. Gerken – Factors Influencing Threatened and Endangered Fishes in the Great Plains: U.S. Fish and Wildlife Service, Agency Peer Review (\$91,149)

2007: Gerken, J.E. – Student Travel Grant: University of Central Arkansas (\$1500) 2007:

Gerken, J.E. – Student Research Grant: University of Central Arkansas (\$1400)

## Presentations

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### INVITED PRESENTATIONS

Gerken, J.E. 2022. Blue Green Algae and Livestock Concerns (Breakout Session). Central Kansas Beef Summit, Salina, Kansas

Gerken, J.E. 2022. Keeping Ponds Clean. Kansas Turfgrass and Landscape Conference, Manhattan, Kansas

Gerken, J.E. 2015. Do Rivers Really Flow Downstream? The Importance of Lateral Connectivity

- for Large River Organisms. Biology Seminar Series, Tennessee Technological University.
- Gerken, J.E. 2010. Topeka Shiners in Kansas: Identifying Risks and Protecting a Federally Endangered Cyprinid. NSF Sponsored Research Experience for Undergraduates (REU) Summer Seminar Series, Kansas State University.
- Gerken, J.E. 2010. Ecology of Cave Dwelling Fishes in Arkansas and Kansas. Kansas State University Student Subunit of the American Fisheries Society.
- Gerken, J.E. and C.P. Paukert. 2009. Distribution and Management of the Federally Endangered Topeka Shiner in Kansas Streams. Midwest Fish and Wildlife Conference, Springfield, Illinois.

EXTENSION PRESENTATIONS

- Gerken, J.E. 2022. Small Farm Irrigation Workshop. Growing Growers Kansas City. (Virtual Presentation)
- Gerken, J.E. 2022. Pond Management Workshop. Sedgewick County Extension Office. (Virtual Presentation)
- Gerken, J.E. 2022. Pond Management Workshop. Cowley County Extension Office. New Salem, KS.
- Gerken, J.E. 2022. Balancing Aquatic Weeds and Fishing Needs. Wildcat Extension District. Altamont, KS.
- Gerken, J.E. 2022. Blue Green Algae and Pond Management for Livestock. Livestock Professional Focus Team Professional Develop Meeting. Manhattan, KS.
- Gerken, J.E. 2022. Pond Management for Pond Owners. Johnson County Extension Office. Overland Park, KS.
- Gerken, J.E. 2022. Pond Management for Homeowners Associations. Johnson County Extension Office. (Virtual Presentation).
- Gerken, J.E. 2022. Pond Management Workshop. Leavenworth County Extension Office. Tonganoxie, KS.
- Gerken, J.E. 2022. Pondering Ponds Workshop. Southwind Extension District. (Virtual Presentation).
- Gerken, J.E. 2022. Alternative Weed Control Techniques for Aquatic Environments. KSRE Commercial Applicator Recertification Training Program. 2022. (Virtual Presentation).

PROFESSIONAL PRESENTATIONS (\* Indicates Advised Undergraduate Student)

- Perkin, J.S., Z.R. Shattuck, J.E. Gerken, and T.H. Bonner. 2013. Stream fragmentation and drought legacy determine distribution of Burrhead Chub in subtropical streams. Texas Chapter of the American Fisheries Society, Annual Meeting, Lake Conroe, TX.
- Gerken, J.E., C.P. Paukert, and B.K. Sandercock. 2012. Age-specific Demography of Silver Carp: Implications for Management and Control. American Fisheries Society, Annual Meeting, Seattle, Washington.
- Fischer, J.L., J.E. Gerken, C.P. Paukert, and M.D. Daniels. 2012. Habitat and Fish Community Response to Sand Dredging in a Large Great Plains River. American Fisheries Society, Annual Meeting, Seattle, Washington.

- Daniels, M.D., J.L. Fischer, K. Costigan, J.E. Gerken, and C.P. Paukert. 2012. Making Sense of an Intensively Modified Sediment Regime: Measuring the Relative Impact of In-channel Dredging Amidst Reservoir Trapping and Network-scale Incision in the Kansas River Basin. International Association for Sediment Water Science, International Symposium, Dartington, England.
- Dodds, W.K., J.E. Gerken, J.S. Perkin. 2012. Human Impact on Freshwater Ecosystems Scaled by Relative Influence on Ecosystem Goods and Services. North American Benthological Society, Annual Meeting, Providence, Rhode Island.
- \*Shaw, D.C.R., J.S. Perkin, J.E. Gerken, and K.B. Gido. 2012. Influence of watershed impoundments on prairie stream fish assemblage structure. Kansas Natural Resources Conference, Wichita, Kansas.
- Perkin, J.S., J.E. Gerken, Z.R. Shattuck, and T.H. Bonner. 2012. Life history and population status of burrhead chub (*Macrhybopsis marconis*) in the Western Gulf Slope drainages of Texas. Texas Chapter of the American Fisheries Society, Annual Meeting, Galveston, Texas.
- \*Shaw, D.C.R., J.S. Perkin, J.E. Gerken, and K.B. Gido. 2011. Effects of Small Impoundments on Prairie Stream Fishes. Southwestern Association of Naturalists, Annual Meeting, Tyler, Texas.
- Gerken, J.E. and C.P. Paukert. 2011. The Importance of High Flows and Floodplain Inundation for Fish and Invertebrates of the Kansas River. Kansas Natural Resources Conference, Wichita, Kansas.
- Fischer, J.L., J.E. Gerken, C.P. Paukert, and M.D. Daniels. 2011. Influence of Sand Dredging on Fish Communities in the Kansas River. Kansas Natural Resources Conference, Wichita, Kansas.
- \*Maine, J., \*A. Alexander, \*J. Rezek, \*D. Shaw, J. Fischer, J. Gerken, and J. Perkin. 2011. Spatiotemporal Patterns in the Fish Community of a Connected Floodplain Pond. Kansas Natural Resources Conference, Wichita, Kansas. (Poster)
- Gerken, J.E. and C.P. Paukert. 2010. Floods and Fishes: Examining the Role of High Flows on Fish and Invertebrates in a Large Great Plains River. Midwest Fish and Wildlife Conference, Minneapolis, Minnesota.
- Fischer, J.L., J.E. Gerken, C.P. Paukert, and M.D. Daniels. 2010. Fish Community Response to Habitat Alteration: Impacts of Sand Dredging in the Kansas River. Midwest Fish and Wildlife Conference, Minneapolis, Minnesota.
- Paukert, C.P. and J.E. Gerken. 2010. The Importance of Secondary Channels to Mainchannel Fishes in the Kansas River. Big River Confab, Jefferson City, Missouri.
- Daniels, M.D., J.L. Fischer, K. Costigan, J.E. Gerken, and C.P. Paukert. 2010. Making Sense of an Intensively Modified Sediment Regime: Measuring the Relative Impact of In-channel Dredging Amidst Reservoir Trapping and Network-Scale Incision in the Kansas River Basin. Geological Society of America, Annual Meeting, Denver, Colorado.
- Gerken, J.E. and C.P. Paukert. 2010. Testing the Flood-Pulse Concept: The Importance of Floodplain Inundation on Fish and Invertebrates of a Great Plains River. American Fisheries Society, Annual Meeting, Pittsburgh, Pennsylvania.
- Gerken, J.E. and C.P. Paukert. 2010. Fish Recruitment in the Kansas River: The Role of Flow, Habitat, and Urbanization. Kansas Natural Resources Conference, Wichita, Kansas.

- \*White, K., J.E. Gerken, C. Paukert, and A. Makinster. 2010. Fish Community Structure in Natural and Engineered Habitats in the Kansas River. Kansas Natural Resources Conference, Annual Meeting, Wichita, Kansas. (Poster)
- \*Mammoliti, K., J.E. Gerken, and C.P. Paukert. 2010. Population Characteristics of Channel Catfish in the Kansas River. Kansas Natural Resources Conference, Annual Meeting, Wichita, Kansas. (Poster)
- Gerken, J.E. and C.P. Paukert. 2009. Impact of Urbanization on the Recruitment Patterns of Three Riverine Fishes in the Kansas River. Midwest Fish and Wildlife Conference, Springfield, Illinois.
- Gerken, J.E. and C.P. Paukert. 2009. Spatial Variation in the Recruitment Patterns of Three Riverine Fishes in the Kansas River. American Fisheries Society, Annual Meeting, Nashville, Tennessee.
- Gerken, J.E. and C.P. Paukert. 2009. Impacts of Bowersock Dam on the Fish Community of the Kansas River. Kansas Natural Resources Conference, Annual Meeting, Wichita, Kansas.
- Gerken, J.E., W. Bouska, and C.P. Paukert. 2009. Effects of Instream Habitat and Fish Communities on the Endangered Topeka Shiner in Kansas Streams. Kansas Natural Resources Conference, Annual Meeting, Wichita, Kansas. (Poster)
- Gerken, J.E. and C.P. Paukert. 2009. Impacts of a Low-head Dam on a Great Plains River Fish Community. American Fisheries Society Midwest Student Colloquium, Annual Meeting, Manhattan, Kansas.
- Gerken, J.E. and C.P. Paukert. 2009. Factors Impacting Topeka Shiner Distribution in Kansas. American Fisheries Society Midwest Student Colloquium, Annual Meeting, Manhattan, Kansas.
- Day, J., C. Johnson, J.E. Gerken, and G.L. Adams. 2009. Population Ecology of Grotto Sculpin (*Cottus carolinae*) in Cave and Resurgence Streams. Southern Division of the American Fisheries Society, Annual Meeting, New Orleans, Louisiana.
- Gerken, J.E. and C.P. Paukert. 2008. Fish Community Changes Associated with a Low-head Dam in a Large Great Plains River. Midwest Fish and Wildlife Conference, Annual Meeting, Columbus, Ohio.
- Gerken, J.E. and C.P. Paukert. 2008. Effects of a Low-head Dam on the Fish Community of a Large Great Plains River. American Fisheries Society, Annual Meeting, Ottawa, Ontario, Canada.
- Gerken, J.E. and G.L. Adams. 2008. Land Use Management and Habitat Conservation for the Cave-dwelling Grotto Sculpin. Kansas Natural Resources Conference, Annual Meeting, Wichita, Kansas.
- Day, J.L., C.R. Johnson, J.E. Gerken, and G.L. Adams. 2008. Population Ecology of Grotto Sculpin (*Cottus carolinae*) in Cave and Resurgence Streams. Joint Meeting of Mississippi and Arkansas Chapters of the American Fisheries Society, Annual Meeting, Tunica, Mississippi.
- Adams, G.L., J.E. Gerken, and J.E. Day. 2007. Population Ecology of the Grotto Sculpin in Cave and Resurgence Streams in Perry County, Missouri. Southeastern Fishes Council, Annual Meeting, Chattanooga, Tennessee.

- Gerken, J.E. and G.L. Adams. 2007. Effects of Siltation on the Habitat Use of the Grotto Sculpin (*Cottus carolinae*), a Troglobitic Fish in Perry County, Missouri. National Cave and Karst Management Symposia, St. Louis, Missouri.
- Gerken, J.E. and G.L. Adams. 2007. Habitat Use of the Grotto Sculpin (*Cottus carolinae*), a Troglobitic Fish in Perry County, Missouri. American Society of Ichthyologists and Herpetologists, Annual Meeting, St. Louis, Missouri.
- Gerken, J.E. and G.L. Adams. 2007. Feeding Ecology and Related Parasitism Rates of the Grotto Sculpin (*Cottus carolinae*), a Troglobitic Fish in Perry County, Missouri. Arkansas Academy of Science, Annual Meeting, Russellville, Arkansas.
- Gerken, J.E. and G.L. Adams. 2007. Effects of Siltation on the Habitat Use of the Grotto Sculpin (*Cottus carolinae*), a Troglobitic Fish Species in Perry County, Missouri. Southern Division of the American Fisheries Society, Annual Meeting, Memphis, Tennessee.

## Awards and Honors

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- 2022: Member of the Climate Ambassadors Program: American Fisheries Society
- 2011: Outstanding Graduate Student Teaching Award – Finalist: Division of Biology, Kansas State University
- 2011: Best Student Presentation Award: Kansas Chapter of the American Fisheries Society – Kansas Natural Resources Conferences
- 2010: Best Student Presentation Award – Second Place: Midwest Fish and Wildlife Conference (Awarded to Co-Author Jason Fischer)
- 2010: Kansas Cooperative Fish and Wildlife Research Unit Outstanding Student Award
- 2010: Otto Tiemier – Frank Cross Graduate Student Award, Kansas Chapter of the American Fisheries Society
- 2009: Best Student Poster Award: Kansas Chapter of the American Fisheries Society – Kansas Natural Resources Conference (Awarded to Undergraduate Advisee Katie White)
- 2009: Janice Lee Fenske Memorial Award Finalist, Kansas Chapter of the American Fisheries Society – Midwest Fish and Wildlife Conference
- 2009: Joan Duffy Travel Grant: Kansas Chapter of the American Fisheries Society – Midwest Fish and Wildlife Conference
- 2009: Skinner Memorial Award: American Fisheries Society – AFS Annual Meeting
- 2009: Best Student Poster Award: Kansas Chapter of the American Fisheries Society – Kansas Natural Resources Conference
- 2008: Best Student Presentation Award: Kansas Chapter of the American Fisheries Society – Kansas Natural Resources Conference
- 2007: Best Student Presentation Award: Southeastern Division of the American Society of Ichthyologists and Herpetologists – ASIH Annual Meeting
- 2007: Travel Award: Southeastern Division of the American Society of Ichthyologists and Herpetologists
- 2007: Conservation Scholarship: Arkansas Game and Fish Commission
- 2007: George N. Huppert Scholarship: National Cave and Karst Management Symposium
- 2006: Conservation Scholarship: Arkansas Game and Fish Commission



## Professional Memberships

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American Fisheries Society (2007 – 2016; 2021 - Present)  
Education Section (2007 – 2016; 2021 - Present)  
Student Subsection of Education Section (2007 – 2016)  
Fish Habitat Section (2009 – 2016)  
Fish Information and Technology Section (2009 – 2016)  
Fisheries Management Section (2009 – 2016)  
Kansas Chapter (2008 – 2014; 2021 - Present)  
Kansas State University Subunit (2008 – 2014)  
Arkansas Chapter (2005 – 2008)

Ecological Society of America (2009 – 2011; 2022 - Present)  
Aquatic Ecology Section (2009 – 2011)  
Student Section (2009 – 2011)  
Friends of the Kansas River (2008 – 2014)  
Southeastern Fishes Council (2007 – 2010)

Southwestern Association of Naturalists (2007 – 2008)  
American Society of Ichthyologists and Herpetologists (2007 – 2008)  
Arkansas Academy of Sciences (2005 – 2007)  
National Speleological Society (2005 – 2007)

## Professional Outreach

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### National

Newsletter Co-Editor, Education Section 2008 – 2011  
Secretary-Treasurer, Student Subsection of the Education Section 2009 –  
2010 Student Liaison, Fish Habitat Section 2009 – 2010  
Co-Instructor, Annual Meeting Continuing Education Course Beginning GIS for Fisheries  
Biologists 2009 – 2012 Advanced GIS for Fisheries Biologists 2009 – 2012

### Regional/Local

North Central Regional Aquaculture Center (NCRAC) Kansas Member 2021 – Present  
NCRAC Kansas Representative – Grant Technical Committee – 2021 - Present  
Kansas Aquaculture Association 2021 – Present  
American Fisheries Society - Kansas Chapter Fundraising Committee, Co-Chair 2008 –  
2011  
Kansas Natural Resources Conference, Break-Out Session Committee Member 2010 –  
2011  
Kansas Natural Resources Conference, Program Committee Member 2009 –2010  
Kansas State University Student Subunit, President 2009 – 2010  
Midwest Fisheries Student Colloquium, Meeting Chair 2009 – 2010

Kansas Natural Resources Conference, Plenary Committee Member 2008 –2009  
BGSU Student Government Representative, Kansas State University, 2009

**Manuscript Reviewer**

Fisheries, River Research and Applications, North American Journal of Fisheries  
Management, Transactions of the American Fisheries Society