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EDUCATION

2016 Ph.D. Fish and Wildlife Conservation, Virginia Tech
2009 M.S. Biology; GIS Technology Certificate, University of Central Arkansas
2001 B.A. Biology and geochemistry, University of Maine, Farmington

PROFFESIONAL EXPERIENCE

2022 – *current* Associate for Research, University of Arkansas, Department of Biology,
USGS Cooperative Fish & Wildlife Research Unit
2019 – *current* Graduate Teaching Faculty, University of Arkansas, Department of Biology
2019 Adjunct Assistant Professor, University of Arkansas at Fort Smith, Department of
Biology
2017 – 2021 Postdoctoral Fellow, University of Arkansas, USGS Cooperative Fish & Wildlife
Research Unit
2016 – 2017 Research Associate, Virginia Tech & Chobe Research Institute at the Center for African
Resources: Animals Communities and Land (CARACAL), Kasane, Botswana
2011 – 2012 Research Associate, Michigan State University. Sustainability of the High Plains
Aquifer Region: Coupled Landscape, Atmosphere, and Socioeconomic Systems
(CLASS).
2006 – 2007 Biological Science Tech GS/0404/05, U. S. Fish and Wildlife Service
Ecological Services Field Office, Cheyenne, WY
2003 – 2005 Biologist, Strandja Nature Park, U.S. Peace Corps Bulgaria

TEACHING EXPERIENCE

University of Arkansas, Fort Smith, Biology, *Co-instructor of Record*

2019 International Study Special Topics: Sustainable Development (BIOL420V, 11 students)

University of Arkansas, Fayetteville, Biology, *Instructor of Record*

2019, 2022 Spatial Ecology Graduate Seminar (BIOL5001, 11 students)

Virginia Tech, Fish & Wildlife Conservation, *Graduate Teaching Assistant*

2014-2016 Wildlife Biology (FIW2314, 40 students)

2014 Mammalogy Laboratory Instructor (BIOL4434, 3 sections of 25 students)

2013 Wetlands Ecology and Management (FIW4534, 18 students)

Michigan State University, Biology/Sociology

2011, 2012 Charles Drew Science Scholars Program Instructor (NatSci, 15 students)

University of Central Arkansas, Biology, *Graduate Teaching Assistant*

2009 Introduction to Biology Laboratory Instructor (BIO1400, 4 sections of 25 students)

2007, 2008 Principals of Biology Laboratory Instructor (BIO1440, 3 sections of 25 students)

PUBLICATIONS (6)

Journal Articles

- Fox, J.T. and D.D. Magoulick. 2022. Hydrologic and environmental thresholds in stream fish assemblage structure across flow regimes. *Ecological Indicators*, 144, 10.1016/j.ecolind.2022.109500
- Fox, J.T. and D.D. Magoulick. 2019. Predicting hydrologic disturbance of streams using species occurrence data. *Science of the Total Environment*, 686, 254-263, doi: 10.1016/j.scitotenv.2019.05.156
- Sanderson, C.E., J.T. Fox, E.R. Dougherty, A.D.S. Cameron, K.A. Alexander. 2018. The changing face of water: A dynamic reflection of antibiotic resistance across landscapes. *Frontiers in Microbiology*, 9, 1894, 10.3389/fmicb.2018.01894
- Fox, J.T., M.E. Vandewalle, K.A. Alexander. 2017. Land cover change in northern Botswana: The influence of climate, fire, and elephants on semi-arid savanna woodlands. *Land*, 6(4), 73; doi: 10.3390/land6040073
- Fox, J.T. and K.A. Alexander. 2015. Spatiotemporal variation and the role of wildlife in seasonal water quality declines in the Chobe River, Botswana. *PLOS One*, 10 (10), 10.1371/journal.pone.0139936
- Fox, J.T., G.A. Adams, M. Sharum, K.L. Steelman. 2010. Passive sampling of bioavailable organic chemicals in Perry County, Missouri cave streams. *Environmental Science and Technology*, 44 (23), 8835-8841, 10.1021/es1019367

In Review (1)

- Fox, J.T. and D.D. Magoulick. The influence of hydrology and watershed-scale disturbance on fish β -diversity across stream flow regimes. *Diversity and Distributions*.

In Preparation (2)

- Fox, J.T., D.D. Magoulick. Representative fish assemblages in Ozark-Ouachita Interior Highlands streams. *Ecohydrology*.
- Fox, J.T., K.A. Alexander, M.E. Vandewalle, C.E. Sanderson. The role of shifting land use and climate change in driving human-wildlife conflict in the Chobe River Basin. *Global Change Biology*.

Technical Reports & Popular Writings (5)

- Fox, J.T., 2020. Flow-ecology relationships and environmental flows assessment for the Ozark-Ouachita Interior Highlands and the West Gulf Coastal Plains. Final Report to Arkansas Game and Fish Commission. SWG-T71
- Fox, J.T., G.A. Adams, and K.L. Steelman. 2009. Contaminant Concentration Analysis of Perry County Cave Streams Utilized by Grotto Sculpin (*Cottus carolinae*). Final Report to the Perry County Soil and Water Conservation District and the Missouri Department of Conservation
- Fox, J.T. 2007. Final Biological Opinion for the Grand Teton National Park Bison and Elk Management Plan. US Fish and Wildlife Service. ES-6-WY-07-F014
- Fox, J.T. 2007. Biomonitoring of Environmental Status and Trends Program Contaminant Assessment Process Report for Lake Mason NWR, Lewiston, MT
- Fox, J.T. 2006. Review of the Risk Assessment on the Ingestion of Lead from Recreationally Shot Prairie Dog (*Cynomys ludovicianus*) Carcasses Consumed by Ferruginous Hawks (*Buteo regalis*)
- Fox, J.T. 2006. The Plants of Strandja Nature Park. By S. Uzunova and S. Uzunov. Bourgas, Bulgaria: National Forestry Agency, Directorate of Strandja Nature Park. 2006. 132 pp., *Photos & Translation*

RESEARCH FUNDING – TOTAL AWARDED: \$1,051,426

(^) indicates a grant for which I was a lead writer and researcher, but not an official PI due to graduate student status

- 2021 U.S. Geological Survey and U.S. Fish and Wildlife Service, “Integrating spatial data for predicting the influence of altered hydrologic and thermal conditions on fish and macroinvertebrate assemblage traits and taxa across stream flow regimes.” (\$454,916, Co-PI with D. Magoulick)
- 2020 Arkansas Game and Fish Commission, “Landscape- and local-scale habitat influences on distribution and abundance of the crayfish *Faxonius eupunctus*, *Faxonius wagneri* and *Faxonius roberti* in the Spring River, Strawberry River and Eleven Point River drainages.” (\$198,874, Co-PI with D. Magoulick)
- 2019 Arkansas Game and Fish Commission, “Hydrologic alteration and geomorphic instability in the Illinois River Watershed and potential impacts on mussel SGCN and associated fish communities.” (\$126,012, Co-PI with D. Magoulick)
- 2015 ^Forest Conservation Botswana (FCB), “Conserving and maintaining forest resources and services in northern Botswana: Sustaining community livelihoods through improved management in the Chobe District.” (\$221,624, PIs: K. Alexander and M. Vandevale)
- 2007 ^Missouri Department of Conservation, “Contaminant concentration analysis of streams utilized by Grotto Sculpin (*Cottus carolinae*) in Perry County, Missouri.” (\$50,000, PI: G. Adams)

PRESENTATIONS

(*) Indicates invited talk

- 2022 USGS Annual Cooperators Meeting: “Integrating spatial data for predicting ecological thresholds across stream flow regimes.”
- 2021 *University of Arkansas, Department of Biological Sciences Virtual Seminar: “The changing face of water: ecological flows in a fluid world.”
- USGS Annual Cooperators Meeting, Virtual Symposium: “Predicting the influence of altered hydrologic and thermal conditions on aquatic communities.”
- 2020 Arkansas Game and Fish Commission Wildlife Action Plan Meeting, Virtual Symposium: “Flow-ecology relationships for the Ozark-Ouachita Interior Highlands and West Gulf Coastal Plains.”
- Southern Division of the American Fisheries Society, Little Rock, AR: “Exploring the importance of hydrologic and environmental gradients and thresholds on patterns of fish biodiversity composition”
- 2019 Society for Freshwater Science, Salt Lake City, UT: “Predicting hydrologic disturbance of streams using species occurrence data.”
- American Geophysical Union, Fall Meeting, San Francisco, CA: “A gradient forest approach for exploring hydrologic and environmental thresholds on patterns of fish assemblage structure in intermittent and perennial streams.”
- 2019 American Fisheries Society & The Wildlife Society Joint Annual Conference, Reno, NV: “Exploring the importance of hydrologic and environmental gradients and thresholds on patterns of fish biodiversity composition using a gradient forest approach.”
- 2018 Arkansas Game and Fish Commission Wildlife Action Plan Meeting, Mt. Magazine, AR: “Predicting hydrologic disturbance of streams using species location data.”
- 2015 Ecological Society of America, Baltimore, MD: “Spatiotemporal variation and the role of wildlife in seasonal water quality declines in the Chobe River, Botswana.”
- International Symposium on Society and Resource Management, Charleston, SC: “Sustainable

management of dryland river systems in couple human-environmental systems in southern Africa.”

93rd Annual Virginia Academy of Science Meeting, Harrisonburg, VA: “Water quality, wildlife and protected areas: Implications for sustainable management of dryland river systems in Africa.

Virginia Tech GSA Research Symposium, Blacksburg, VA: “Seasonal water quality at the human-wildlife interface of the Chobe River, Botswana.”

2009 Southeastern Fishes Council; Guntersville, AL: “A quantitative analysis of chemical contaminants found in Missouri cave streams.”

American Fisheries Society Arkansas Chapter; Bentonville, AR: “Contaminant concentration analysis of cave Streams utilized by Grotto Sculpin (*Cottus carolinae*) in Perry County, Missouri.”

American Fisheries Society Southern Division; New Orleans, LA: “Passive sampling of cave Streams in Perry County, Missouri.”

Aquatic Ecology Research Symposium, Dept. of Biology, Conway, AR: “Breakdown and macroinvertebrate colonization of single and mixed species leaf packs in Cadron Creek, Arkansas.”

2008 14th Annual University of Central Arkansas Research Symposium, Conway, AR: “Contaminant concentration analysis of cave Streams utilized by Grotto Sculpin (*Cottus carolinae*) in Perry County, Missouri.”

HONORS & AWARDS

2022	Environmental Dynamics (ENDY) Post-Doctoral Affiliate
2019	NEON Early Career Scholars Award
2015	Virginia Academy of Science Best Student Paper Award – 93 rd Annual Meeting
2015	Graduate Student Association Research Symposium “Gold” Award
2015	Graduate Student Association Competitive Travel Award
2014 & 2015	Georgia Pacific Scholarship
2014	Virginia Tech College of Natural Science GTA Award Nominee
2009	UCA Student Research Award
2007 – 2009	Arkansas Game and Fish Commission Conservation Scholarship
2007	US Fish and Wildlife Service STAR Award

SERVICE

2021 – present	Reviewer – Frontiers in Environmental Science
2020 – 2022	National Ecological Observatory Network - Aquatic Working Group
2020 – present	Reviewer – Hydrobiologia
2019 – present	Reviewer – Journal of Applied Ecology
2018 – present	Reviewer – Science for the Total Environment
2017 – present	Reviewer – Freshwater Biology
2016 – present	Reviewer – North American Congress for Conservation Biology
2014 – 2015	Virginia Tech FIW GSA Guest Speaker Chair
2014	Proposal Reviewer, Graduate Research Development Program
2013	Judge, GSA Research Symposium Judge
2013 – 2014	Virginia Tech Graduate Student Assembly Representative
2011 – 2012	U.S. Peace Corps Program Lecturer, MSU, East Lansing, MI
2009	Judge, Arkansas Envirothon Competition; UCA; Conway, AR
2008 – 2009	Vice President and Founding Member of UCA Subunit, American Fisheries Society
2008	Guest Lecturer, Arkansas Governor’s School; Hendrix College, Conway, AR
2006 – 2007	Critter Camp, Cheyenne, WY
2003 – 2005	US Peace Corps, Bulgaria

PROFESSIONAL AFFILIATIONS

- 2014 – *present* Ecological Society of America
- 2014 – 2016 Virginia Academy of Science
- 2009 – *present* American Association for the Advancement of Science
- 2008 – *present* Society for Conservation Biology
- 2008 – *present* American Fisheries Society

CERTIFICATIONS & TRAINING

- 2022 NASA Applied Remote Sensing Training Program (ARSET): Using Earth Observations for Pre- and Post-Fire Monitoring
- 2021 NASA Applied Remote Sensing Training Program (ARSET): Introduction to NASA’s “Black Marble” Night Lights Data
- 2020 NASA Applied Remote Sensing Training Program (ARSET): Applications of GPM IMERG Reanalysis for Assessing Extreme Dry and Wet Periods
- 2018 NASA Applied Remote Sensing Training Program (ARSET): Advanced Change Detection for Land Cover Mapping
- 2007 Interagency Consultation for Threatened and Endangered Species – Bureau of Land Management – Eugene, Oregon
- 2005 U.S. State Department Language Proficiency Examination – Advanced High Bulgarian Language Fluency