

JAMES FOX FACULTY BIOGRAPHICAL SKETCH

(a) Professional Preparation

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|-----------------------------|---------------------------|-----------|
| University of Dayton | Civil Engineering | B.S. 2001 |
| Washington State University | Environmental Engineering | M.S. 2002 |
| University of Iowa | Civil Engineering | PhD 2005 |

(b) Appointments

Professor, University of Kentucky, July 2015 – Present
Associate Professor, University of Kentucky, July 2011 – June 2015
Assistant Professor, University of Kentucky, August 2005 – June 2011

(c) Recent Publications (students underlined)

1. Mahoney D.T., N. Al Aamery, J.F. Fox, B. Riddle, W.I. Ford, and Y.T. Wang, (2018). Equilibrium sediment exchange in the earth's critical zone: evidence from sediment fingerprinting with stable isotopes and watershed modelling, *Journal of Soils and Sediments*, Springer, DOI: 10.1007/s11368-018-2208-8.
2. Mahoney D.T., J.F. Fox, N. Al Aamery. (2018). Watershed erosion modeling using the probability of sediment connectivity in a gently rolling system. *Journal of Hydrology*, 561: 862-883. (10.1016/j.jhydrol.2018.04.034)
3. Al Aamery N., J.F. Fox, M. Snyder and C.V. Chandramouli. (2018). Variance analysis of forecasted streamflow maxima in a wet temperate climate. *Journal of Hydrology*, 560: 364-381.
4. Rienzi, E., Fox J., Grove, J., Matocha C. (2018). Experimental results and temporal surrogate modeling of particulate organic carbon released during interrill erosion. *Catena*, accepted Dec 7, 2017. Volume 163, April 2018, Pages 1-12.
5. Papanicolaou A.N., Bressan F., Fox J.F., Kramer C., Kjos L. (2018). Role of structure submergence on scour evolution in gravel bed rivers: application to slope-crested structures, *Journal of Hydraulic Engineering ASCE*, Vol 144(2).
6. Jensen, A., Ford, W.I., Fox, J.F., Husic, A. (2018). Improving in-stream nutrient routines in water quality models using stable isotope tracers: a review and synthesis, *Transactions of the ASABE-American Society of Agricultural and Biological Engineers*, Vol 61(1): 139-157.
7. Ford, W.I. and Fox, J.F. (2017). Reducing equifinality in a new numerical model highlights the flux of algal nitrogen from agricultural streams, *Water Resources Research*, 10.1002/2017WR020607:1-23.
8. Stewart, R.L. and Fox, J.F. (2017). Light Attenuation Model for Waters: Linear and Nonlinear Dependencies on Suspended Sediment, *Journal of Hydraulic Engineering ASCE*, in press. Volume 143, Issue 9, ISSN (print): 0733-9429 | ISSN (online): 1943-7900.
9. Stewart, R.L. and Fox, J.F. (2017). Outer Region Scaling Using the Freestream Velocity for Nonuniform Open Channel Flow Over Gravel, *Advances in Water Resources*, DOI: 10.1016/j.advwatres.2017.04.004, Volume 104, June 2017, Pages 271–283.
10. Husic A., J. Fox, C. Agouridis, J. Currens, W. Ford, and C. Taylor. (2017). Sediment Carbon Source, Fate, and Transport in a Fluviokarst Watershed (Part 1): Conceptual Model Development, *Journal of Hydrology*, 10.1016/j.jhydrol.2017.03.052, 549 (2017) 179–193.
11. Husic A., J. Fox, W. Ford, C. Agouridis, J. Currens, and C. Taylor. (2017). Sediment Carbon Source, Fate, and Transport in a Fluviokarst Watershed (Part 2): Numerical Model Development and Application, *Journal of Hydrology*, 10.1016/j.jhydrol.2017.03.059, 549 (2017) 208–219.
12. Ford, W.I. and Fox, J.F. (2017). Stabilization of Benthic Algal Biomass in a Temperate Stream Draining Agroecosystems, *Water Research*, 108: 432-443.

(d) Synergistic Activities

- Initiated a research initiative to develop experimental watersheds and watershed instrumentation networks in Kentucky involving six institutions and 26 scientists.
- Renovated two flumes to perform fluid turbulence research, and currently constructing a new hydraulic flume for calibration of inexpensive velocity and turbidity sensors.
- Recipient of 15 teaching and mentoring awards from the Department of Civil Engineering, College of Engineering, and Provost at the University of Kentucky.
- Taught an experimental class focusing on turbulence and sediment transport in rivers for graduate students. Course is now part of the civil engineering graduate curriculum.
- Taught an experimental class focused on watershed processes, modeling and associated environmental issues. Course is now part of the graduate curriculum.
- Associate Editor for Journal of Hydraulic Engineering ASCE. Reviewer for over 25 peer reviewed journals. Reviewer for NSF and NOAA proposals.

(e) Collaborators & Other Affiliations

- Collaborators and Co-Editors:
Behera, Pruneet, University of District of Columbia
Blumenthal, Mayah University of Louisville
Brion, Gail, University of Kentucky
Bryson, Sebastian, University of Kentucky
Campbell, Elliott, University of California-Merced
Grove, John, University of Kentucky
Harnett, Cindy, University of Louisville
Hendricks, Susan, Murray State University
Hopf, Kyle, University of Louisville
Jones, Alice, Eastern Kentucky University
Kucera, Barbara, University of Kentucky
Matocha, Chris, University of Kentucky
Ormsbee, Lindell, University of Kentucky
Patrick, Amos, University of Iowa
Rowe, Harry, University of Texas
Rienzi, Eduardo, University of Kentucky
Schueler, Kristy, University of Louisville
Strom, Kyle, University of Houston
Teegavarapu, Ramesh, Florida Atlantic University
Viswanathan, Chandra, Purdue University
White, David, Murray State University
Wilkinson, Marsh, University of Kentucky
- Graduate and Postdoctoral Advisors: Thanos A. N. Papanicolaou, IIHR-Hydroscience & Engineering, University of Iowa
- Thesis Advisor and Postgraduate-Scholar Sponsor (All at University of Kentucky unless specified): Peter Acton, Brian Belcher, Charles Davis, William Ford, Davis Huston, Thomas Lawrence, Darren Martin, Joseph Russo, Michelle Sliter, Robert Stewart, Tien Mun Yee.