

## JEFFREY DANIEL MUEHLBAUER

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### EDUCATION

*Ph.D. Ecology.* University of North Carolina at Chapel Hill, 2013

- Thesis: "Stream signatures" and aquatic-terrestrial interactions in arthropod food webs

*M.S. Ecology.* University of North Carolina at Chapel Hill, 2010

- Thesis: Ecological heterogeneity in streams: geomorphic and hydrologic influences on macroinvertebrate community structure

*B.S. Biology & Chemistry.* Northern Arizona University, 2007

Ecology Emphasis, with Honors, *Summa cum laude*. 4.0 GPA.

- Thesis: Short-term effects of dam decommissioning and flow restoration

### RESEARCH & EMPLOYMENT

*US Geological Survey, Grand Canyon Monitoring and Research Center and Southwest Biological Science Center.* Flagstaff, AZ. Supervisor: Dr. Theodore A. Kennedy

- Research Biologist (GS-12), 5/1/2017–Pres, 40+ hrs/wk.
- Postdoctoral Fellow, Research Ecologist (GS-12), 5/1/2013–5/1/2017, 40+ hrs/wk.

*University of North Carolina.* Chapel Hill, NC. Advisor: Dr. Martin W. Doyle

- University Fellow, 6/1/2007–5/1/2013, 40+ hrs/wk.
- Geography/Ecology TA/RA, 9/1/2008–5/1/2012, 40+ hrs/wk.

*Leibniz Institute of Freshwater Ecology & Inland Fisheries (IGB).* Berlin, Germany.

Collaborators: Drs. Klement Tockner, Michael T. Monaghan, Martin T. Pusch

- Visiting Fellow, 5/1/2011–9/1/2011, 40+ hrs/wk.
- Tagliamento River research station, 5/1/2010–9/1/2010, 40+ hrs/wk.

*Northern Arizona University.* Flagstaff, AZ. Advisor: Dr. Jane C. Marks

- Research Associate, Department of Biology, 8/1/2003–5/1/2007, 10-40+ hrs/wk.

### FIVE REPRESENTATIVE PUBLICATIONS

Muehlbauer, J.D., Lupoli, C.A. & Kraus, J.M. (2019) Aquatic-terrestrial linkages provide novel opportunities for freshwater ecologists to engage stakeholders and inform riparian management. *Freshwater Science* 38:946–952. DOI: 10.1086/70610

Muehlbauer, J.D., Kennedy, T.A., Copp, A.J. & Sabol, T.A. (2017) Deleterious effects of net clogging on the quantification of stream drift. *Canadian Journal of Fisheries and Aquatic Sciences* 74:1041–1048. DOI: 10.1139/cjfas-2016-0365

Kennedy, T.A., Muehlbauer, J.D., Yackulic, C.B., Lytle, D.A., Miller, S.W., Dibble, K.L., Kortenhoeven, E.W., Metcalfe, A.N. & Baxter, C.V. (2016) Flow management for hydropower extirpates aquatic insects, undermining river food webs. *BioScience* 77: 561–575. DOI: 10.1093/biosci/biw059

Larsen, S., Muehlbauer, J.D. & Martí, E. (2016) Resource subsidies between stream and terrestrial ecosystems under global change. *Global Change Biology* 22: 2489–2504. DOI: 10.1111/gcb.13182

Muehlbauer, J.D., Collins, S.F., Doyle, M.W. & Tockner, K. (2014) How wide is a stream? The spatial extent of the potential "stream signature" in terrestrial food webs using meta-analysis. *Ecology* 95: 44-55. DOI: 10.1890/12-1628.1

## PROFESSIONAL SERVICE

*Constitutional Revision Committee.* Society for Freshwater Science

- Chair 2017–2018.; Member 2014–2016, 2019–Pres.

*Author English Help Volunteer*

- Ecological Society of America, 2006–Pres.; Society for Freshwater Science, 2017–Pres.

*Graduate Student President.* UNC Curriculum for the Environment & Ecology, 2012–2013

*Undergraduate Awards Committee.* Society for Freshwater Science, 2012–2013

*Seminar Committee.* UNC Curriculum for the Environment & Ecology

- Chair 2011–2012; Member 2008–2009, 2010–2011

*Faculty Search Committee.* UNC Curriculum for the Environment & Ecology, 2011–2012

*Ad-hoc Associate Editor.* Ecological Applications, 2017

*Peer-Reviewer.* (≥1 each)

- *Proposals:* NSF Division of Environmental Biology (DEB), Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) Pathfinder Grant
- *General ecology:* Ecology, J Applied Ecol, Global Change Biol, Ecol & Evol, Ecosystems, J Biogeography, Restoration Ecol, PeerJ, Oecologia, Ambio, Sci Total Env, Env Entomology
- *Aquatic ecology:* Freshwater Sci, Canadian J Fisheries & Aquatic Sci, River Research & Applications, Estuaries and Coasts, Aquatic Sci, Hydrobiologia, J Freshwater Ecol
- *Hydrology & geomorphology:* Water Resources Research, Limnology & Oceanography: Fluids & Environments, J American Water Resources Association

## SYNERGISTIC ACTIVITIES

*"Science Expert."* Flagstaff Schools, Trinity Heights United Methodist Church, Chapel Hill Schools, NC Museum of Natural Science, NC State Fair, NC Division of Water Quality, NC Museum of Life & Science, Ravenscroft School. 2009–Pres.

*Internship Mentor.* Doris Duke Conservation Scholars Program, 2014

*Special Session Organizer and Chair.* "Emergent insects as focal taxa for bridging ecological understanding across ecosystems: a synthesis of current knowledge and novel applications". Joint Aquatic Sciences Meeting, 2014

*"Instars" Undergraduate Program Mentor.* Society for Freshwater Science, 2012

*Graduate Research Consultant.* UNC Cistern Water Quality Capstone, 2011

*Envirothon Coach.* Sinagua (AZ) High School Envirothon team, 2006–2007

*Assistant Scoutmaster, Ropes Instructor & Trip Leader.* Boy Scouts of America, 2003–2007

*Conservation Volunteer & Organizer.* The Nature Conservancy, Sierra Club & Sierra Student Coalition, Society of Environmental Communicators, 2002–2007

*Chapter President/VP.* NAU Student Affiliates of the American Chemical Society, 2005–2007

*Active Member.* (Join date)

- Ecological Society of America (ESA), 2005
- Society for Freshwater Science (SFS), 2008
- Honor Society of Phi Kappa Phi, 2005