

JEFFREY DANIEL MUEHLBAUER

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EDUCATION

PhD Ecology. University of North Carolina at Chapel Hill, 2013

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

MS Ecology. University of North Carolina at Chapel Hill, 2010

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

BS 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, Alaska Cooperative Fisheries and Wildlife Research Unit. Fairbanks, AK. Supervisor: Dr. Jeffrey A. Falke

- Assistant Unit Leader, Fisheries Biologist (GS-12), 4/1/2021–Pres, 40+ hrs/wk.

University of Alaska Fairbanks, Institute of Arctic Biology, Department of Fisheries, and Department of Biology and Wildlife. Fairbanks, AK.

- Assistant Professor, 4/1/2021–Pres (concurrent with AKCFWRU)

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

- Fisheries Biologist/Research Ecologist (GS-12), 5/1/2013–4/1/2021, 40+ hrs/wk.

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

- University Fellow, Geography/Ecology TA/RA 6/1/2007–5/1/2013, 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, 5/1/2010–9/1/2010, 5/1/2011–9/1/2011, 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.

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.

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.

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

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.

PROFESSIONAL SERVICE

Justice, Equity, Diversity, and Inclusion (JEDI) Committees. UAF

- Co-Chair (Dept. Biology & Wildlife) 2021–Pres.; Member (Dept. Fisheries) 2021–Pres.

Constitutional Revision Committee. Society for Freshwater Science

- Chair 2017–2018; Co-Chair 2020–2021.; Member 2014–2016, 2019–2020, 2021–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

Associate Editor. Aquatic Sciences, 2021–Pres.

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, PLoS ONE, Methods in Ecol & Evol, Biol Invasions
- *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, J Hydrology

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. 2009–2021.

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