# 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. \*Currently Dr. Kevin Whalen while on Detail

* Assistant Unit Leader, Fisheries Biologist (GS-12), 4/1/2021–Pres, 40+ hrs/wk.
* \*Currently on Detail as Acting Unit Leader (GS-13), 5/7/2023–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., Larsen, S., Jonsson, M. & Emilson, E.J.S. (2020) Variables affecting resource subsidies from streams and rivers to land and their susceptibility to global change stressors. In: *Contaminants and Ecological Subsidies: The Land-Water Interface* (Eds J.M. Kraus, D.M. Walters & M.A. Mills), pp 129–155. Springer, Cham, Switzerland. DOI: [10.1007/978-3-030-49480-3\_7](https://doi.org/10.1007/978-3-030-49480-3_7)

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

*Annual Meeting Planning Committee Member*. AFS Alaska Chapter, 2022–Pres.

*Justice, Equity, Diversity, and Inclusion (JEDI/DEI) Committees*.

* Co-Chair (UAF Dept. Biology & Wildlife) 2021–Pres.; Member (UAF Dept. Fisheries) 2021–Pres.; Member (USGS Cooperative Research Units) 2022–Pres.; Member (AK Chapter AFS) 2023–Pres.

*Tamamta NSF Research Traineeship (NRT) Team Member*. UAF, 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.

*Associate Editor.* Aquatic Sciences, 2021–Pres.

*Peer-Reviewer*. (≥1 each)

* *General ecology:* Ecology, J Applied Ecol, Global Change Biol, Ecol & Evol, Ecosphere, Ecosystems, J Biogeography, Restoration Ecol, PeerJ, Oecologia, Ambio, Sci Total Env, Env Entomology, PLoS ONE, Methods in Ecol & Evol, Biol Invasions
* *Aquatic ecology:* Limnology & Oceanography Letters, Freshwater Sci, Canadian J Fisheries & Aquatic Sci, River Research & Appl, Estuaries and Coasts, Aquatic Sci, Hydrobiologia, J Freshwater Ecol, Limnology & Oceanography: Methods
* *Hydrology & geomorphology:* Water Resources Research, Limnology & Oceanography: Fluids & Env, J American Water Resources Assoc, J Hydrology, Hydrol Processes

# Synergistic Activities

*Climate and Health Team Member*. Alaska Alliance for Community Engagement,2023–Pres.

*Expert Practitioner.* Global Learning and Observation to Benefit the Environment (GLOBE) Climate Change in My Community Workshop, 2023

*“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.

*COVID-19 Panelist*. UAF Faculty Senate Committee on the Status of Women, 2023

*“Science Expert”* for youth groups.

* Pearl Creek Elementary School, 2023; Flagstaff Schools, 2019; Trinity Heights United Methodist Church 2019, Chapel Hill/Carrboro City Schools, 2009

*Special Session Co-organizer*.

* “Fostering and inclusive environment and developing a lab culture”. USGS Cooperative Research Units All-Hands Meeting, 2023
* “Processes and best practices for data management and data and software (code) releases”. USGS Cooperative Research Units All-Hands Meeting, 2023
* “Emergent insects as focal taxa for bridging ecological understanding across ecosystems: a synthesis of current knowledge and novel applications”. Joint Aquatic Sciences Meeting, 2014

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

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

*Active Member*. (Join date)

* Society for Freshwater Science (SFS), 2008
* American Fisheries Society, 2021