

Water Quality Section Member Publications

2022

- Corsi, C. E., M. P. Corsi, K. E. Wallen, K. A. Bouwens, P. C. Kusnierz, K. E. Shaw, N. E. Hall, J. S. Maroney, and J. S. Williams. 2022. From fragments to connections to restoration: A case history of emergent sociocultural services in the Clark Fork River and Lake Pend Oreille fishery. *Aquatic Ecosystem Health and Management* 25(1):6–15.
- Herlihy, A. T., R. M. Hughes, and W. J. Gerth. 2022. Longitudinal patterns in riverine ecology within and among seven Pacific Northwest rivers: Implications for river research, monitoring and management. *River Research and Applications* 38(3):548–560.
- Jager, H. I., N. A. Griffiths, C. H. Hansen, A. W. King, P. G. Matson, D. Singh, and R. M. Pilla. 2022. Getting lost tracking the carbon footprint of hydropower. *Renewable and Sustainable Energy Reviews* 162:112408.
- Jager, H. I., M. R. Hilliard, M. H. Langholtz, R. A. Efroymsen, C. C. Brandt, S. S. Nair, and J. A. Kreig. 2022. Ecosystem service benefits to water users from perennial biomass production. *Science of the Total Environment* 834:155255.
- Linares, M. S., D. R. Macedo, M. Callisto, R. M. Hughes, and D. M. P. Castro. 2023. The past is never dead: legacy effects alter the structure of benthic macroinvertebrate assemblages. *Limnetica* 42(1).
- Malone, E. W., J. S. Perkin, W. Keith Gibbs, M. Padgett, M. Kulp, and S. E. Moore. 2022. High and dry in days gone by: Life-history theory predicts Appalachian mountain stream fish assemblage transformation during historical drought. *Ecology of Freshwater Fish* 31(1):29–44.
- Salvador, G. N., L. F. de A. Montag, R. M. Hughes, S. M. Almeida, B. S. Prudente, T. C. Pessali, T. A. Barroso, M. V. Cianciaruso, R. L. B. Santos, L. Juen, and M. B. Carlucci. 2022. Influences of multiple anthropogenic disturbances, coupled with a tailings dam rupture, on spatiotemporal variation of fish assemblages in a tropical river. *Freshwater Biology* 67(10): 1708–1724.
- Storch, A. J., H. A. Schaller, C. E. Petrosky, R. L. Vadas Jr, B. J. Clemens, G. Sprague, N. Mercado-Silva, B. Roper, M. J. Parsley, and E. Bowles. 2022. A review of potential conservation and fisheries benefits of breaching four dams in the Lower Snake River (Washington, USA). *Water Biology and Security*:100030.
- Vadas, R. L., Jr., R. M. Hughes, O. Bello-Gonzales, M. Callisto, D. Carvalho, K. Chen, P. E. Davies, M. T. Ferreira, P. Fierro, J. S. Harding, C. J. Kleynhans, D. R. Macedo, N. Mercado-Silva, N. Moya, S. J. Nichols, P. S. Pompeu, R. Ruaro, R. J. Stevenson, B. F. Terra, C. Thirion, D. Ticiani, and C. O. Yoder. 2022. Assemblage-based biomonitoring of freshwater ecosystem health via multimetric indices: a critical review and suggestions for improving their applicability. *Water Biology & Security*:100054.
- Vera, I., B. Wicke, P. Lamers, A. Cowie, A. Repo, B. Heukels, C. Zumpf, D. Styles, E. Parish, and F. Cherubini. 2022. Land use for bioenergy: Synergies and trade-offs between sustainable development goals. *Renewable and Sustainable Energy Reviews* 161:112409.

2021

- Alvarenga, L. R., P. S. Pompeu, C. G. Leal, R. M. Hughes, D. C. Fagundes, and R. P. Leitão. 2021. Land-use changes affect the functional structure of stream fish assemblages in the Brazilian Savanna. *Neotropical Ichthyology* 19.
- Azevedo-Santos, V. M., M. S. Arcifa, M. F. Brito, A. A. Agostinho, R. M. Hughes, J. R. Vitule, D. Simberloff, J. D. Olden, and F. M. Pelicice. 2021. Negative impacts of mining on

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- Neotropical freshwater fishes. *Neotropical Ichthyology* 19.
- Bradley, P. M., M. A. Kulp, B. J. Huffman, K. M. Romanok, K. L. Smalling, S. E. Breitmeyer, J. M. Clark, and C. A. Journey. 2021. Reconnaissance of cumulative risk of pesticides and pharmaceuticals in Great Smoky Mountains National Park streams. *Science of The Total Environment* 781:146711.
- Callisto, M., R. L. Massara, M. S. Linares, and R. M. Hughes. 2021. Benthic macroinvertebrate assemblages detect the consequences of a stochastic sewage spill in an urban stream: a case study of a south American environmental challenge. *Limnology*. <https://doi.org/10.1007/s10201-021-00680-0>.
- Feio, M. J., R. M. Hughes, M. Callisto, S. J. Nichols, O. N. Odume, B. R. Quintella, M. Kuemmerlen, F. C. Aguiar, S. F. Almeida, and P. Alonso-EguíaLis. 2021. The biological assessment and rehabilitation of the world's rivers: An overview. *Water* 13(3):371.
- Fierro, P., R. M. Hughes, and C. Valdovinos. 2021. Temporal Variability of Macroinvertebrate Assemblages in a Mediterranean Coastal Stream: Implications for Bioassessment. *Neotropical Entomology* 50(6):873–885.
- Hughes, R. M., A. T. Herlihy, and D. V. Peck. 2021. Sampling efforts for estimating fish species richness in western USA river sites. *Limnologica* 87:125859.
- Hughes, R. M., and R. L. Vadas. 2021. Agricultural effects on streams and rivers: a western USA focus. *Water* 13(14):1901.
- Jager, H. I., R. A. Efroymson, and R. A. McManamay. 2021. Renewable energy and biological conservation in a changing world. *Biological Conservation* 263:109354.
- Jager, H. I., J. W. Long, R. L. Malison, B. P. Murphy, A. Rust, L. G. Silva, R. Sollmann, Z. L. Steel, M. D. Bowen, and J. B. Dunham. 2021. Resilience of terrestrial and aquatic fauna to historical and future wildfire regimes in western North America. *Ecology and Evolution* 11(18):12259–12284.
- Kreig, J. A., E. Parish, and H. I. Jager. 2021. Growing grasses in unprofitable areas of US Midwest croplands could increase species richness. *Biological Conservation* 261:109289.
- Langholtz, M., B. H. Davison, H. I. Jager, L. Eaton, L. M. Baskaran, M. Davis, and C. C. Brandt. 2021. Increased nitrogen use efficiency in crop production can provide economic and environmental benefits. *Science of The Total Environment* 758:143602.
- Lomnický, G. A., R. M. Hughes, D. V. Peck, and P. L. Ringold. 2021. Correspondence between a recreational fishery index and ecological condition for USA streams and rivers. *Fisheries Research* 233:105749.
- Martins, I., D. R. Macedo, R. M. Hughes, and M. Callisto. 2021. Major risks to aquatic biotic condition in a Neotropical Savanna River basin. *River Research and Applications* 37(6):858–868.
- Martins, R. T., J. Brito, K. Dias-Silva, C. G. Leal, R. P. Leitao, V. C. Oliveira, J. M. Oliveira-Júnior, S. F. Ferraz, F. R. de Paula, and F. O. Roque. 2021. Low forest-loss thresholds threaten Amazonian fish and macroinvertebrate assemblage integrity. *Ecological Indicators* 127:107773.
- McManamay, R. A., C. R. Vernon, and H. I. Jager. 2021. Global biodiversity implications of alternative electrification strategies under the shared socioeconomic pathways. *Biological Conservation* 260:109234.
- Merovich, G. T., N. P. Hitt, E. R. Merriam, and J. W. Jones. 2021. Response of aquatic life to coal mining in Appalachia. *Appalachia's Coal-Mined Landscapes*:245–285.
- Neal, J. W., J. E. Claussen, M. R. Douglas, E. T. Spencer, E. Tracy, H. Blasius, T. Mackey, C. J.

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- Hall, P. C. Kusnierz, and M. E. Douglas. 2021. Best Practices for Communicating Climate Science for Fisheries Professionals. *Fisheries* 46(9):445–448.
- Pompeu, P. S., D. R. de Carvalho, C. G. Leal, R. P. Leitão, C. B. M. Alves, D. F. Braga, M. A. Castro, N. T. Junqueira, and R. M. Hughes. 2021. Sampling efforts for determining fish species richness in megadiverse tropical regions. *Environmental Biology of Fishes* 104(11):1487–1499.
- Silva, L. F., D. M. Castro, L. Juen, M. Callisto, R. M. Hughes, and M. G. Hermes. 2021. A matter of suborder: are Zygoptera and Anisoptera larvae influenced by riparian vegetation in Neotropical Savanna streams? *Hydrobiologia* 848(19):4433–4443.
- Tsang, Y., D. M. Infante, L. Wang, D. Krueger, and D. Wiefelrich. 2021. Conserving stream fishes with changing climate: Assessing fish responses to changes in habitat over a large region. *Science of the Total Environment* 755:142503.

2020

- Herlihy, A. T., J. C. Sifneos, R. M. Hughes, D. V. Peck, and R. M. Mitchell. 2020. The relation of lotic fish and benthic macroinvertebrate condition indices to environmental factors across the conterminous USA. *Ecological Indicators* 112:105958.
- Herlihy, A. T., J. C. Sifneos, R. M. Hughes, D. V. Peck, and R. M. Mitchell. 2020. The relation of lotic fish and benthic macroinvertebrate condition indices to environmental factors across the conterminous USA. *Ecological Indicators* 112:105958.
- Hitt, N. P., K. Rogers, K. Kessler, and H. Macmillan. 2020. Modeling occupancy of imperiled stream fishes in the upper Kentucky and Cumberland River basins. USGS Open-File Report 2020-1100.
- Kusnierz, P. C., H. I. Jager, and A. S. Todd. 2020. A call for collaboration among water quality and fisheries professionals. *Fisheries* 45(3):157–162.

2019

- McManamay, R. A., and H. Jager. 2019. Stream Biomes of the World. Oak Ridge National Lab.(ORNL), Oak Ridge, TN (United States).

2016

- Chen, Y., A. S. Todd, M. H. Murphy, and G. Lomnický. 2016. Anticipated water quality changes in response to climate change and potential consequences for inland fishes. *Fisheries* 41(7):413–416.