

# Robert O Hall

## List of Publications by Year in descending order

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Version: 2024-02-01

87  
papers

8,989  
citations

57758

44  
h-index

56724

83  
g-index

96  
all docs

96  
docs citations

96  
times ranked

7550  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Stream denitrification across biomes and its response to anthropogenic nitrate loading. <i>Nature</i> , 2008, 452, 202-205.  | 27.8 | 1,097     |
| 2  | Food webs: reconciling the structure and function of biodiversity. <i>Trends in Ecology and Evolution</i> , 2012, 27, 689-697.   | 8.7  | 521       |
| 3  | Nitrous oxide emission from denitrification in stream and river networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 214-219.       | 7.1  | 517       |
| 4  | Sources of and processes controlling CO2 emissions change with the size of streams and rivers. <i>Nature Geoscience</i> , 2015, 8, 696-699.  | 12.9 | 430       |
| 5  | Quantity and quality: unifying food web and ecosystem perspectives on the role of resource subsidies in freshwaters. <i>Ecology</i> , 2011, 92, 1215-1225.                                   | 3.2  | 382       |
| 6  | THE TROPHIC SIGNIFICANCE OF BACTERIA IN A DETRITUS-BASED STREAM FOOD WEB. <i>Ecology</i> , 1998, 79, 1995-2012.  | 3.2  | 281       |
| 7  | Loss of a Harvested Fish Species Disrupts Carbon Flow in a Diverse Tropical River. <i>Science</i> , 2006, 313, 833-836.  | 12.6 | 270       |
| 8  | Inter-regional comparison of land-use effects on stream metabolism. <i>Freshwater Biology</i> , 2010, 55, 1874-1890.   | 2.4  | 267       |
| 9  | The metabolic regimes of flowing waters. <i>Limnology and Oceanography</i> , 2018, 63, S99.  | 3.1  | 247       |
| 10 | Exotic snails dominate nitrogen and carbon cycling in a highly productive stream. <i>Frontiers in Ecology and the Environment</i> , 2003, 1, 407-411.  | 4.0  | 239       |
| 11 | ORGANIC MATTER FLOW IN STREAM FOOD WEBS WITH REDUCED DETRITAL RESOURCE BASE. <i>Ecology</i> , 2000, 81, 3445-3463.   | 3.2  | 210       |
| 12 | ARE RIVERS JUST BIG STREAMS? A PULSE METHOD TO QUANTIFY NITROGEN DEMAND IN A LARGE RIVER. <i>Ecology</i> , 2008, 89, 2935-2945.  | 3.2  | 182       |
| 13 | Nitrate removal in stream ecosystems measured by 15N addition experiments: Denitrification. <i>Limnology and Oceanography</i> , 2009, 54, 666-680.   | 3.1  | 181       |
| 14 | Can't See the Forest for the Stream? In-stream Processing and Terrestrial Nitrogen Exports. <i>BioScience</i> , 2005, 55, 219.   | 4.9  | 178       |
| 15 | Extremely High Secondary Production Of Introduced Snails In Rivers. , 2006, 16, 1121-1131.   |      | 177       |
| 16 | Improving the fluorometric ammonium method: matrix effects, background fluorescence, and standard additions. <i>Journal of the North American Benthological Society</i> , 2007, 26, 167-177. | 3.1  | 175       |
| 17 | Nitrate removal in stream ecosystems measured by 15N addition experiments: Total uptake. <i>Limnology and Oceanography</i> , 2009, 54, 653-665.  | 3.1  | 165       |
| 18 | Foodweb dynamics in a large river discontinuum. <i>Ecological Monographs</i> , 2013, 83, 311-337.  | 5.4  | 150       |

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|----|--|------|-----------|
| 19 | Ecosystem ecology meets adaptive management: food web response to a controlled flood on the Colorado River, Glen Canyon. , 2011, 21, 2016-2033.  |      | 141       |
| 20 | Metabolism, Gas Exchange, and Carbon Spiraling in Rivers. <i>Ecosystems</i> , 2016, 19, 73-86.   | 3.4  | 134       |
| 21 | Overcoming Equifinality: Leveraging Long Time Series for Stream Metabolism Estimation. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 624-645.                                  | 3.0  | 126       |
| 22 | Trophic basis of invertebrate production in 2 streams at the Hubbard Brook Experimental Forest. <i>Journal of the North American Benthological Society</i> , 2001, 20, 432-447.                        | 3.1  | 123       |
| 23 | Turbidity, light, temperature, and hydropeaking control primary productivity in the Colorado River, Grand Canyon. <i>Limnology and Oceanography</i> , 2015, 60, 512-526.                               | 3.1  | 118       |
| 24 | Relating transient storage to channel complexity in streams of varying land use in Jackson Hole, Wyoming. <i>Water Resources Research</i> , 2007, 43, .  | 4.2  | 113       |
| 25 | Thinking outside the channel: modeling nitrogen cycling in networked river ecosystems. <i>Frontiers in Ecology and the Environment</i> , 2011, 9, 229-238.   | 4.0  | 104       |
| 26 | Correcting whole-€stream estimates of metabolism for groundwater input. <i>Limnology and Oceanography: Methods</i> , 2005, 3, 222-229.   | 2.0  | 102       |
| 27 | Distinct air-€water gas exchange regimes in low- and high-energy streams. <i>Nature Geoscience</i> , 2019, 12, 259-263.  | 12.9 | 102       |
| 28 | Invasive species impact: asymmetric interactions between invasive and endemic freshwater snails. <i>Journal of the North American Benthological Society</i> , 2008, 27, 509-520.                       | 3.1  | 96        |
| 29 | Estimating autotrophic respiration in streams using daily metabolism data. <i>Freshwater Science</i> , 2013, 32, 507-516.  | 1.8  | 86        |
| 30 | Carbon dynamics of river corridors and the effects of human alterations. <i>Ecological Monographs</i> , 2017, 87, 379-409.   | 5.4  | 86        |
| 31 | Dissolved organic carbon uptake in streams: A review and assessment of reach-€scale measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 2019-2029.                     | 3.0  | 83        |
| 32 | Introduced Lake Trout Produced a Four-€Level Trophic Cascade in Yellowstone Lake. <i>Transactions of the American Fisheries Society</i> , 2010, 139, 1536-1550.  | 1.4  | 72        |
| 33 | Solute-specific scaling of inorganic nitrogen and phosphorus uptake in streams. <i>Biogeosciences</i> , 2013, 10, 7323-7331.   | 3.3  | 72        |
| 34 | Sediment, water column, and open-€channel denitrification in rivers measured using membrane-€inlet mass spectrometry. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1258-1274. | 3.0  | 69        |
| 35 | Modeling priming effects on microbial consumption of dissolved organic carbon in rivers. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 982-995.                                | 3.0  | 67        |
| 36 | Gas exchange in streams and rivers. <i>Wiley Interdisciplinary Reviews: Water</i> , 2020, 7, e1391.  | 6.5  | 67        |

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|----|--|-----|-----------|
| 37 | How network structure can affect nitrogen removal by streams. <i>Freshwater Biology</i> , 2018, 63, 128-140.   | 2.4 | 65        |
| 38 | The metabolic regimes of 356 rivers in the United States. <i>Scientific Data</i> , 2018, 5, 180292.  | 5.3 | 65        |
| 39 | Whole-stream <sup>13</sup> C tracer addition reveals distinct fates of newly fixed carbon. <i>Ecology</i> , 2015, 96, 403-416.   | 3.2 | 62        |
| 40 | Scaling of dissolved organic carbon removal in river networks. <i>Advances in Water Resources</i> , 2017, 110, 136-146.  | 3.8 | 62        |
| 41 | Light and flow regimes regulate the metabolism of rivers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .  | 7.1 | 62        |
| 42 | The influence of floodplain restoration on whole-stream metabolism in an agricultural stream: insights from a 5-year continuous data set. <i>Freshwater Science</i> , 2014, 33, 1043-1059.             | 1.8 | 60        |
| 43 | Stream Metabolism. , 2017, , 219-233.  |     | 56        |
| 44 | Forest age, wood and nutrient dynamics in headwater streams of the Hubbard Brook Experimental Forest, NH. <i>Earth Surface Processes and Landforms</i> , 2007, 32, 1154-1163.                          | 2.5 | 53        |
| 45 | Use of a Stable Carbon Isotope Addition to Trace Bacterial Carbon through a Stream Food Web. <i>Journal of the North American Benthological Society</i> , 1995, 14, 269-277.                           | 3.1 | 51        |
| 46 | Emergent productivity regimes of river networks. <i>Limnology and Oceanography Letters</i> , 2019, 4, 173-181.   | 3.9 | 50        |
| 47 | Phosphorus-mediated changes in life history traits of the invasive New Zealand mudsnail ( <i>Potamopyrgus antipodarum</i> ). <i>Oecologia</i> , 2010, 163, 549-559.                                    | 2.0 | 46        |
| 48 | Macroinvertebrate diets reflect tributary inputs and turbidity-driven changes in food availability in the Colorado River downstream of Glen Canyon Dam. <i>Freshwater Science</i> , 2013, 32, 397-410. | 1.8 | 46        |
| 49 | Particle transport and transient storage along a stream-size gradient in the Hubbard Brook Experimental Forest. <i>Journal of the North American Benthological Society</i> , 2002, 21, 195-205.        | 3.1 | 45        |
| 50 | Twenty years of daily metabolism show riverine recovery following sewage abatement. <i>Limnology and Oceanography</i> , 2019, 64, S77.   | 3.1 | 45        |
| 51 | The varying role of water column nutrient uptake along river continua in contrasting landscapes. <i>Biogeochemistry</i> , 2015, 125, 115-131.  | 3.5 | 42        |
| 52 | Incorporation of Bacterial Extracellular Polysaccharide by Black Fly Larvae ( <i>Simuliidae</i> ). <i>Journal of the North American Benthological Society</i> , 1996, 15, 289-299.                     | 3.1 | 39        |
| 53 | Differential zooplankton feeding behaviors, selectivities, and community impacts of two planktivorous fishes. <i>Environmental Biology of Fishes</i> , 1992, 35, 401-411.                              | 1.0 | 38        |
| 54 | Air-water oxygen exchange in a large whitewater river. <i>Limnology &amp; Oceanography Fluids &amp; Environments</i> , 2012, 2, 1-11.  | 1.7 | 37        |

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|----|---|------|-----------|
| 55 | Hyporheic invertebrates affect N cycling and respiration in stream sediment microcosms. <i>Journal of the North American Benthological Society</i> , 2004, 23, 416-428.                                       | 3.1  | 35        |
| 56 | Enhancement of primary production during drought in a temperate watershed is greater in larger rivers than headwater streams. <i>Limnology and Oceanography</i> , 2019, 64, 1458-1472.                        | 3.1  | 34        |
| 57 | The effect of invertebrate consumption on bacterial transport in a mountain stream. <i>Limnology and Oceanography</i> , 1996, 41, 1180-1187.  | 3.1  | 33        |
| 58 | Impacts of detritivore diversity loss on instream decomposition are greatest in the tropics. <i>Nature Communications</i> , 2021, 12, 3700.   | 12.8 | 33        |
| 59 | Invasion and production of New Zealand mud snails in the Colorado River, Glen Canyon. <i>Biological Invasions</i> , 2010, 12, 3033-3043.  | 2.4  | 32        |
| 60 | Use of argon to measure gas exchange in turbulent mountain streams. <i>Biogeosciences</i> , 2018, 15, 3085-3092.  | 3.3  | 30        |
| 61 | Latitude dictates plant diversity effects on instream decomposition. <i>Science Advances</i> , 2021, 7, .   | 10.3 | 27        |
| 62 | Response of American dippers ( <i>Cinclus mexicanus</i> ) to variation in stream water quality. <i>Freshwater Biology</i> , 2004, 49, 1123-1137.  | 2.4  | 26        |
| 63 | Shifting stream planform state decreases stream productivity yet increases riparian animal production. <i>Oecologia</i> , 2018, 187, 167-180.   | 2.0  | 25        |
| 64 | Sediment size and nutrients regulate denitrification in a tropical stream. <i>Journal of the North American Benthological Society</i> , 2009, 28, 480-490.  | 3.1  | 24        |
| 65 | Shifts in Klamath River metabolism following a reservoir cyanobacterial bloom. <i>Freshwater Science</i> , 2016, 35, 795-809.   | 1.8  | 23        |
| 66 | Nitrogen fixation can exceed inorganic nitrogen uptake fluxes in oligotrophic streams. <i>Biogeochemistry</i> , 2014, 121, 537-549.   | 3.5  | 21        |
| 67 | Scaling Dissolved Nutrient Removal in River Networks: A Comparative Modeling Investigation. <i>Water Resources Research</i> , 2017, 53, 9623-9641.  | 4.2  | 21        |
| 68 | Long-term changes in structure and function of a tropical headwater stream following a disease-driven amphibian decline. <i>Freshwater Biology</i> , 2015, 60, 575-589.                                       | 2.4  | 20        |
| 69 | Ammonium uptake kinetics and nitrification in mountain streams. <i>Freshwater Science</i> , 2017, 36, 41-54.  | 1.8  | 20        |
| 70 | Food web controls on mercury fluxes and fate in the Colorado River, Grand Canyon. <i>Science Advances</i> , 2020, 6, eaaz4880.  | 10.3 | 19        |
| 71 | High Diet Overlap between Native Small-bodied Fishes and Nonnative Fathead Minnow in the Colorado River, Grand Canyon, Arizona. <i>Transactions of the American Fisheries Society</i> , 2014, 143, 1072-1083. | 1.4  | 17        |
| 72 | A stream's role in watershed nutrient export. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 10137-10138.  | 7.1  | 16        |

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|----|--|-----|-----------|
| 73 | Sustained stoichiometric imbalance and its ecological consequences in a large oligotrophic lake. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 7.1 | 16        |
| 74 | Dam tailwaters compound the effects of reservoirs on the longitudinal transport of organic carbon in an arid river. Biogeosciences, 2015, 12, 4345-4359.                                       | 3.3 | 15        |
| 75 | Metabolism of Streams and Rivers. , 2016, , 151-180.   |     | 15        |
| 76 | Methods for quantifying aquatic macroinvertebrate diets. Freshwater Science, 2016, 35, 229-236.  | 1.8 | 15        |
| 77 | Linking calcification by exotic snails to stream inorganic carbon cycling. Oecologia, 2010, 163, 235-244.  | 2.0 | 14        |
| 78 | Detritivorous fish indirectly reduce insect secondary production in a tropical river. Ecosphere, 2011, 2, art135.  | 2.2 | 14        |
| 79 | Demographic and mutualistic responses of stream nitrogen fixers to nutrients. Freshwater Science, 2013, 32, 991-1004.  | 1.8 | 13        |
| 80 | Introduced lake trout alter nitrogen cycling beyond Yellowstone Lake. Ecosphere, 2015, 6, 1-24.  | 2.2 | 13        |
| 81 | Drivers of nitrogen transfer in stream food webs across continents. Ecology, 2017, 98, 3044-3055.  | 3.2 | 13        |
| 82 | A coupled metabolic-hydraulic model and calibration scheme for estimating whole-river metabolism during dynamic flow conditions. Limnology and Oceanography: Methods, 2017, 15, 847-866.       | 2.0 | 13        |
| 83 | Production and diversity of microorganisms associated with sinking particles in the subtropical North Pacific Ocean. Limnology and Oceanography, 2021, 66, 3255-3270.                          | 3.1 | 12        |
| 84 | Water column contributions to the metabolism and nutrient dynamics of mid-sized rivers. Biogeochemistry, 2021, 153, 67-84.   | 3.5 | 7         |
| 85 | Linking denitrification with ecosystem respiration in mountain streams. Limnology and Oceanography Letters, 2019, 4, 145-154.  | 3.9 | 6         |
| 86 | A precipitous decline in an invasive snail population cannot be explained by a native predator. Biological Invasions, 2020, 22, 363-378.   | 2.4 | 6         |
| 87 | Nonconsumptive effects of Brook Trout predators reduce secondary production of mayfly prey. Freshwater Science, 2020, 39, 549-558.   | 1.8 | 2         |