

# Alexander S Flecker

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92 papers	4,433 citations	31 h-index	65 g-index
98 ext. papers	5,276 ext. citations	6.5 avg, IF	5.54 L-index

#	Paper	IF	Citations
92	A machine learning approach to identify barriers in stream networks demonstrates high prevalence of unmapped riverine dams. <i>Journal of Environmental Management</i> , <b>2022</b> , 302, 113952	7.9	2
91	Reducing adverse impacts of Amazon hydropower expansion.. <i>Science</i> , <b>2022</b> , 375, 753-760	33.3	4
90	NEOTROPICAL FRESHWATER FISHES: A dataset of occurrence and abundance of freshwater fishes in the Neotropics.. <i>Ecology</i> , <b>2022</b> , e3713	4.6	
89	A whole-ecosystem experiment reveals flow-induced shifts in a stream community.. <i>Communications Biology</i> , <b>2022</b> , 5, 420	6.7	0
88	Strategic planning of hydropower development: balancing benefits and socioenvironmental costs. <i>Current Opinion in Environmental Sustainability</i> , <b>2022</b> , 56, 101175	7.2	2
87	Climate change may impair electricity generation and economic viability of future Amazon hydropower. <i>Global Environmental Change</i> , <b>2021</b> , 71, 102383	10.1	6
86	Latitude dictates plant diversity effects on instream decomposition. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	9
85	The experimental range extension of guppies ( <i>Poecilia reticulata</i> ) influences the metabolic activity of tropical streams. <i>Oecologia</i> , <b>2021</b> , 195, 1053-1069	2.9	
84	Substitution of inland fisheries with aquaculture and chicken undermines human nutrition in the Peruvian Amazon. <i>Nature Food</i> , <b>2021</b> , 2, 192-197	14.4	3
83	Emergent Freshwater Insects Serve as Subsidies of Methylmercury and Beneficial Fatty Acids for Riparian Predators Across an Agricultural Gradient. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 5868-5877	10.3	6
82	Declining diversity of wild-caught species puts dietary nutrient supplies at risk. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	3
81	Impacts of detritivore diversity loss on instream decomposition are greatest in the tropics. <i>Nature Communications</i> , <b>2021</b> , 12, 3700	17.4	3
80	Temperature dependence of metabolic rate in tropical and temperate aquatic insects: Support for the Climate Variability Hypothesis in mayflies but not stoneflies. <i>Global Change Biology</i> , <b>2021</b> , 27, 297-311	11.4	8
79	Differences in nutrient mineralisation between native and invasive grazing catfish during the invasion process. <i>Austral Ecology</i> , <b>2021</b> , 46, 290-302	1.5	2
78	A unifying framework for analyzing temporal changes in functional and taxonomic diversity along disturbance gradients. <i>Ecology</i> , <b>2021</b> , 102, e03503	4.6	0
77	Nitrogen pollution promotes changes in the niche space of fish communities. <i>Oecologia</i> , <b>2021</b> , 197, 485-500	9	4
76	Using $\delta^{15}\text{N}$ of periphyton and fish to evaluate spatial and seasonal variation of anthropogenic nitrogen inputs in a polluted Brazilian river basin. <i>Ecological Indicators</i> , <b>2020</b> , 115, 106372	5.8	8

75	A New Method to Reconstruct Quantitative Food Webs and Nutrient Flows from Isotope Tracer Addition Experiments. <i>American Naturalist</i> , <b>2020</b> , 195, 964-985	3.7	1
74	Consumer movement dynamics as hidden drivers of stream habitat structure: suckers as ecosystem engineers on the night shift. <i>Oikos</i> , <b>2020</b> , 129, 194-208	4	5
73	Hydropeaking Operations of Two Run-of-River Mega-Dams Alter Downstream Hydrology of the Largest Amazon Tributary. <i>Frontiers in Environmental Science</i> , <b>2020</b> , 8,	4.8	11
72	Computational sustainability. <i>Communications of the ACM</i> , <b>2019</b> , 62, 56-65	2.5	18
71	A global perspective on tropical montane rivers. <i>Science</i> , <b>2019</b> , 365, 1124-1129	33.3	27
70	Reducing greenhouse gas emissions of Amazon hydropower with strategic dam planning. <i>Nature Communications</i> , <b>2019</b> , 10, 4281	17.4	58
69	Nutrient recycling by insect and fish communities in high-elevation tropical streams. <i>Hydrobiologia</i> , <b>2019</b> , 838, 13-28	2.4	7
68	Trophic responses to aquatic pollution of native and exotic livebearer fishes. <i>Science of the Total Environment</i> , <b>2019</b> , 681, 503-515	10.2	20
67	Streamlined eco-engineering approach helps define environmental flows for tropical Andean headwaters. <i>Freshwater Biology</i> , <b>2019</b> , 64, 1315-1325	3.1	11
66	Ecosystem Function and Services of Aquatic Predators in the Anthropocene. <i>Trends in Ecology and Evolution</i> , <b>2019</b> , 34, 369-383	10.9	69
65	Aquatic Predators Influence Micronutrients: Important but Understudied. <i>Trends in Ecology and Evolution</i> , <b>2019</b> , 34, 882-883	10.9	4
64	Aquatic and terrestrial resources are not nutritionally reciprocal for consumers. <i>Functional Ecology</i> , <b>2019</b> , 33, 2042-2052	5.6	24
63	Validating anthropogenic threat maps as a tool for assessing river ecological integrity in Andean-Amazon basins. <i>PeerJ</i> , <b>2019</b> , 7, e8060	3.1	9
62	Extreme streams: species persistence and genomic change in montane insect populations across a flooding gradient. <i>Ecology Letters</i> , <b>2018</b> , 21, 525-535	10	21
61	Fasting or fear: disentangling the roles of predation risk and food deprivation in the nitrogen metabolism of consumers. <i>Ecology</i> , <b>2018</b> , 99, 681-689	4.6	8
60	Determinants of food resource assimilation by stream insects along a tropical elevation gradient. <i>Oecologia</i> , <b>2018</b> , 187, 731-744	2.9	4
59	Boosting Efficiency for Computing the Pareto Frontier on Tree Structured Networks. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 263-279	0.9	3
58	Conversion efficiency of linolenic acid to omega-3 highly unsaturated fatty acids in aerial insectivore chicks. <i>Journal of Experimental Biology</i> , <b>2018</b> , 221,	3	17

57	Narrow thermal tolerance and low dispersal drive higher speciation in tropical mountains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 12471-12476 <sup>11.5</sup>	96
56	Efficiently Optimizing for Dendritic Connectivity on Tree-Structured Networks in a Multi-Objective Framework <b>2018</b> ,	2
55	Extreme flooding decreases stream consumer autochthony by increasing detrital resource availability. <i>Freshwater Biology</i> , <b>2018</b> , 63, 1483-1497	3.1 8
54	Nonnative fish stocking alters stream ecosystem nutrient dynamics <b>2017</b> , 27, 956-965	14
53	Environmental flows in the context of unconventional natural gas development in the Marcellus Shale. <i>Ecological Applications</i> , <b>2017</b> , 27, 37-55	4.9 17
52	Climate variability predicts thermal limits of aquatic insects across elevation and latitude. <i>Functional Ecology</i> , <b>2017</b> , 31, 2118-2127	5.6 62
51	Combined effects of hydrologic alteration and cyprinid fish in mediating biogeochemical processes in a Mediterranean stream. <i>Science of the Total Environment</i> , <b>2017</b> , 601-602, 1217-1225	10.2 5
50	Limited seasonal variation in food quality and foodweb structure in an Adirondack stream: insights from fatty acids. <i>Freshwater Science</i> , <b>2017</b> , 36, 877-892	2 5
49	Drivers of nitrogen transfer in stream food webs across continents. <i>Ecology</i> , <b>2017</b> , 98, 3044-3055	4.6 10
48	Riparian plant litter quality increases with latitude. <i>Scientific Reports</i> , <b>2017</b> , 7, 10562	4.9 46
47	Population variation in the trophic niche of the Trinidadian guppy from different predation regimes. <i>Scientific Reports</i> , <b>2017</b> , 7, 5770	4.9 15
46	The influence of dietary and whole-body nutrient content on the excretion of a vertebrate consumer. <i>PLoS ONE</i> , <b>2017</b> , 12, e0187931	3.7 11
45	Highly unsaturated fatty acids in nature: what we know and what we need to learn. <i>Oikos</i> , <b>2016</b> , 125, 749-760	4 124
44	Fish introductions and light modulate food web fluxes in tropical streams: a whole-ecosystem experimental approach. <i>Ecology</i> , <b>2016</b> , 97, 3154-3166	4.6 12
43	Towards catchment classification in data-scarce regions. <i>Ecohydrology</i> , <b>2016</b> , 9, 1235-1247	2.5 19
42	Evaluating weather observations and the Climate Forecast System Reanalysis as inputs for hydrologic modelling in the tropics. <i>Hydrological Processes</i> , <b>2016</b> , 30, 3466-3477	3.3 22
41	The importance of terrestrial subsidies in stream food webs varies along a stream size gradient. <i>Oikos</i> , <b>2016</b> , 125, 674-685	4 46
40	Increased Light Availability Reduces the Importance of Bacterial Carbon in Headwater Stream Food Webs. <i>Ecosystems</i> , <b>2016</b> , 19, 396-410	3.9 23

39	Biotic and abiotic variables influencing plant litter breakdown in streams: a global study. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2016</b> , 283,	4.4	64
38	Freshwater vertebrate and invertebrate diversity patterns in an Andean-Amazon basin: implications for conservation efforts. <i>Neotropical Biodiversity</i> , <b>2016</b> , 2, 99-114	0.7	15
37	Fossil clam shells reveal unintended carbon cycling consequences of Colorado River management. <i>Royal Society Open Science</i> , <b>2016</b> , 3, 160170	3.3	7
36	Divergence across diet, time and populations rules out parallel evolution in the gut microbiomes of Trinidadian guppies. <i>ISME Journal</i> , <b>2015</b> , 9, 1508-22	11.9	85
35	Population size-structure-dependent fitness and ecosystem consequences in Trinidadian guppies. <i>Journal of Animal Ecology</i> , <b>2015</b> , 84, 955-68	4.7	16
34	Intraspecific phenotypic differences in fish affect ecosystem processes as much as bottom-up factors. <i>Oikos</i> , <b>2015</b> , 124, 1181-1191	4	32
33	Quantifying the top-down and bottom-up effects of a non-native grazer in freshwaters. <i>Biological Invasions</i> , <b>2015</b> , 17, 1253-1266	2.7	10
32	Changes in digestive traits and body nutritional composition accommodate a trophic niche shift in Trinidadian guppies. <i>Oecologia</i> , <b>2015</b> , 177, 245-57	2.9	25
31	Metabolic stoichiometry and the ecology of fear in Trinidadian guppies: consequences for life histories and stream ecosystems. <i>Oecologia</i> , <b>2014</b> , 176, 691-701	2.9	44
30	Is Mobility a Fixed Trait? Summer Movement Patterns of Catostomids using PIT Telemetry. <i>Transactions of the American Fisheries Society</i> , <b>2014</b> , 143, 1098-1111	1.7	10
29	Intraspecific variability modulates interspecific variability in animal organismal stoichiometry. <i>Ecology and Evolution</i> , <b>2014</b> , 4, 1505-15	2.8	16
28	Population Structure of a Neotropical Migratory Fish: Contrasting Perspectives from Genetics and Otolith Microchemistry. <i>Transactions of the American Fisheries Society</i> , <b>2013</b> , 142, 1192-1201	1.7	27
27	How mobile are fish populations? Diel movement, population turnover, and site fidelity in suckers. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , <b>2013</b> , 70, 666-677	2.4	20
26	Invasive aquarium fish transform ecosystem nutrient dynamics. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2013</b> , 280, 20131520	4.4	52
25	Invasive fishes generate biogeochemical hotspots in a nutrient-limited system. <i>PLoS ONE</i> , <b>2013</b> , 8, e54093	3.7	69
24	Widespread intraspecific organismal stoichiometry among populations of the Trinidadian guppy. <i>Functional Ecology</i> , <b>2012</b> , 26, 666-676	5.6	74
23	Flow, nutrients, and light availability influence Neotropical epilithon biomass and stoichiometry. <i>Freshwater Science</i> , <b>2012</b> , 31, 1019-1034	2	49
22	Effects of consumer interactions on benthic resources and ecosystem processes in a neotropical stream. <i>PLoS ONE</i> , <b>2012</b> , 7, e45230	3.7	19

21	A global experiment suggests climate warming will not accelerate litter decomposition in streams but might reduce carbon sequestration. <i>Ecology Letters</i> , <b>2011</b> , 14, 289-94	10	220
20	Leaf-litter decomposition across three flooding regimes in a seasonally flooded Amazonian watershed. <i>Journal of Tropical Ecology</i> , <b>2011</b> , 27, 205-210	1.3	20
19	Nutrient diffusing substrata: a field comparison of commonly used methods to assess nutrient limitation. <i>Journal of the North American Benthological Society</i> , <b>2011</b> , 30, 522-532		40
18	Detritivorous fish indirectly reduce insect secondary production in a tropical river. <i>Ecosphere</i> , <b>2011</b> , 2, art135	3.1	11
17	Local adaptation in Trinidadian guppies alters ecosystem processes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 3616-21	11.5	267
16	Patch dynamics and environmental heterogeneity in lotic ecosystems. <i>Journal of the North American Benthological Society</i> , <b>2010</b> , 29, 84-99		141
15	Sediment size and nutrients regulate denitrification in a tropical stream. <i>Journal of the North American Benthological Society</i> , <b>2009</b> , 28, 480-490		23
14	Crossing borders: promoting graduate research in the developing world. <i>Frontiers in Ecology and the Environment</i> , <b>2009</b> , 7, 333-334	5.5	
13	Fish distributions and nutrient cycling in streams: can fish create biogeochemical hotspots?. <i>Ecology</i> , <b>2008</b> , 89, 2335-46	4.6	215
12	Improving the fluorometric ammonium method: matrix effects, background fluorescence, and standard additions. <i>Journal of the North American Benthological Society</i> , <b>2007</b> , 26, 167-177		147
11	Fish extinctions alter nutrient recycling in tropical freshwaters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 4461-6	11.5	257
10	Loss of a harvested fish species disrupts carbon flow in a diverse tropical river. <i>Science</i> , <b>2006</b> , 313, 833-6	33.3	225
9	Nutrient recycling by two phosphorus-rich grazing catfish: the potential for phosphorus-limitation of fish growth. <i>Oecologia</i> , <b>2005</b> , 146, 247-57	2.9	79
8	TROPICAL FISHES AS BIOLOGICAL BULLDOZERS: DENSITY EFFECTS ON RESOURCE HETEROGENEITY AND SPECIES DIVERSITY. <i>Ecology</i> , <b>2004</b> , 85, 2267-2278	4.6	70
7	LOCAL VS. LANDSCAPE CONTROLS ON PLANT SPECIES RICHNESS IN BEAVER MEADOWS. <i>Ecology</i> , <b>2003</b> , 84, 3162-3173	4.6	69
6	An ecosystem engineer, the beaver, increases species richness at the landscape scale. <i>Oecologia</i> , <b>2002</b> , 132, 96-101	2.9	411
5	Stoichiometry of nutrient recycling by vertebrates in a tropical stream: linking species identity and ecosystem processes. <i>Ecology Letters</i> , <b>2002</b> , 5, 285-293	10	256
4	INTERACTIONS BETWEEN HERBIVOROUS FISHES AND LIMITING NUTRIENTS IN A TROPICAL STREAM ECOSYSTEM. <i>Ecology</i> , <b>2002</b> , 83, 1831-1844	4.6	106

3	Lizard diversity and agricultural disturbance in a Caribbean forest landscape. <i>Biodiversity and Conservation</i> , <b>2001</b> , 10, 711-723	3-4	75
2	Ecosystem Engineering by a Dominant Detritivore in a Diverse Tropical Stream. <i>Ecology</i> , <b>1996</b> , 77, 1845-1854	1-5	247
1	Temperature-dependence of metabolic rate in tropical and temperate aquatic insects: support for the Climate Variability Hypothesis in mayflies but not stoneflies		2