Alexander S Flecker

List of Publications by Year
in descending order

96 papers	5,942 citations	109321 35 h-index	76900 74 g-index
98 all docs	98 docs citations	98 times ranked	6482 citing authors

#	Article	IF	Citations
1	<scp>NEOTROPICAL FRESHWATER FISHES</scp>: A dataset of occurrence and abundance of freshwater fishes in the Neotropics. Ecology, 2023, 104, e3713.	3.2	7
2	A machine learning approach to identify barriers in stream networks demonstrates high prevalence of unmapped riverine dams. Journal of Environmental Management, 2022, 302, 113952.	7.8	13
3	Reducing adverse impacts of Amazon hydropower expansion. Science, 2022, 375, 753-760.	12.6	60
4	A whole-ecosystem experiment reveals flow-induced shifts in a stream community. Communications Biology, 2022, 5, 420.	4.4	5
5	Strategic planning of hydropower development: balancing benefits and socioenvironmental costs. Current Opinion in Environmental Sustainability, 2022, 56, 101175.	6.3	18
6	Biodiversity underpins fisheries resilience to exploitation in the Amazon river basin. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, .	2.6	7
7	Temperature dependence of metabolic rate in tropical and temperate aquatic insects: Support for the Climate Variability Hypothesis in mayflies but not stoneflies. Global Change Biology, 2021, 27, 297-311.	9.5	26
8	Differences in nutrient mineralisation between native and invasive grazing catfish during the invasion process. Austral Ecology, 2021, 46, 290-302.	1.5	4
9	Latitude dictates plant diversity effects on instream decomposition. Science Advances, 2021, 7, .	10.3	27
10	The experimental range extension of guppies (Poecilia reticulata) influences the metabolic activity of tropical streams. Oecologia, 2021, 195, 1053-1069.	2.0	0
11	Substitution of inland fisheries with aquaculture and chicken undermines human nutrition in the Peruvian Amazon. Nature Food, 2021, 2, 192-197.	14.0	14
12	Emergent Freshwater Insects Serve as Subsidies of Methylmercury and Beneficial Fatty Acids for Riparian Predators Across an Agricultural Gradient. Environmental Science & Technology, 2021, 55, 5868-5877.	10.0	17
13	Declining diversity of wild-caught species puts dietary nutrient supplies at risk. Science Advances, 2021, 7, .	10.3	20
14	Impacts of detritivore diversity loss on instream decomposition are greatest in the tropics. Nature Communications, 2021, 12, 3700.	12.8	33
15	A unifying framework for analyzing temporal changes in functional and taxonomic diversity along disturbance gradients. Ecology, 2021, 102, e03503.	3.2	9
16	Nitrogen pollution promotes changes in the niche space of fish communities. Oecologia, 2021, 197, 485-500.	2.0	9
17	Climate change may impair electricity generation and economic viability of future Amazon hydropower. Global Environmental Change, 2021, 71, 102383.	7.8	18
18	Chapter 29: Restoration priorities and benefits within landscapes and catchments and across the Amazon basin. , 2021, , .		0

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19	Chapter 3: Biological diversity and ecological networks in the Amazon. , 2021, , .		4
20	Chapter 27: Conservation measures to counter the main threats to Amazonian biodiversity. , 2021, , .		0
21	Chapter 28: Restoration options for the Amazon. , 2021, , .		2
22	Consumer movement dynamics as hidden drivers of stream habitat structure: suckers as ecosystem engineers on the night shift. Oikos, 2020, 129, 194-208.	2.7	11
23	Hydropeaking Operations of Two Run-of-River Mega-Dams Alter Downstream Hydrology of the Largest Amazon Tributary. Frontiers in Environmental Science, 2020, 8, .	3.3	31
24	Using Î´15N of periphyton and fish to evaluate spatial and seasonal variation of anthropogenic nitrogen inputs in a polluted Brazilian river basin. Ecological Indicators, 2020, 115, 106372.	6.3	11
25	A New Method to Reconstruct Quantitative Food Webs and Nutrient Flows from Isotope Tracer Addition Experiments. American Naturalist, 2020, 195, 964-985.	2.1	4
26	Aquatic Predators Influence Micronutrients: Important but Understudied. Trends in Ecology and Evolution, 2019, 34, 882-883.	8.7	5
27	Aquatic and terrestrial resources are not nutritionally reciprocal for consumers. Functional Ecology, 2019, 33, 2042-2052.	3.6	54
28	Computational sustainability. Communications of the ACM, 2019, 62, 56-65.	4.5	49
29	A global perspective on tropical montane rivers. Science, 2019, 365, 1124-1129.	12.6	52
30	Reducing greenhouse gas emissions of Amazon hydropower with strategic dam planning. Nature Communications, 2019, 10, 4281.	12.8	126
31	Nutrient recycling by insect and fish communities in high-elevation tropical streams. Hydrobiologia, 2019, 838, 13-28.	2.0	10
32	Trophic responses to aquatic pollution of native and exotic livebearer fishes. Science of the Total Environment, 2019, 681, 503-515.	8.0	33
33	Streamlined ecoâ€engineering approach helps define environmental flows for tropical Andean headwaters. Freshwater Biology, 2019, 64, 1315-1325.	2.4	14
34	Ecosystem Function and Services of Aquatic Predators in the Anthropocene. Trends in Ecology and Evolution, 2019, 34, 369-383.	8.7	143
35	Validating anthropogenic threat maps as a tool for assessing river ecological integrity in Andeanâ€“Amazon basins. PeerJ, 2019, 7, e8060.	2.0	12
36	Conversion efficiency of alpha linolenic acid to omega-3 highly unsaturated fatty acids in aerial insectivore chicks. Journal of Experimental Biology, 2018, 221, .	1.7	22

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37	Extreme streams: species persistence and genomic change in montane insect populations across a flooding gradient. Ecology Letters, 2018, 21, 525-535.	6.4	35
38	Fasting or fear: disentangling the roles of predation risk and food deprivation in the nitrogen metabolism of consumers. Ecology, 2018, 99, 681-689.	3.2	9
39	Determinants of food resource assimilation by stream insects along a tropical elevation gradient. Oecologia, 2018, 187, 731-744.	2.0	9
40	Narrow thermal tolerance and low dispersal drive higher speciation in tropical mountains. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12471-12476.	7.1	161
41	Efficiently Optimizing for Dendritic Connectivity on Tree-Structured Networks in a Multi-Objective Framework. , 2018, , .		3
42	Extreme flooding decreases stream consumer autochthony by increasing detrital resource availability. Freshwater Biology, 2018, 63, 1483-1497.	2.4	12
43	Boosting Efficiency for Computing the Pareto Frontier on Tree Structured Networks. Lecture Notes in Computer Science, 2018, , 263-279.	1.3	4
44	Nonnative fish stocking alters stream ecosystem nutrient dynamics. Ecological Applications, 2017, 27, 956-965.	3.8	16
45	Environmental flows in the context of unconventional natural gas development in the <scp>M</scp>arcellus <scp>S</scp>hale. Ecological Applications, 2017, 27, 37-55.	3.8	19
46	Climate variability predicts thermal limits of aquatic insects across elevation and latitude. Functional Ecology, 2017, 31, 2118-2127.	3.6	104
47	Combined effects of hydrologic alteration and cyprinid fish in mediating biogeochemical processes in a Mediterranean stream. Science of the Total Environment, 2017, 601-602, 1217-1225.	8.0	6
48	Limited seasonal variation in food quality and foodweb structure in an Adirondack stream: insights from fatty acids. Freshwater Science, 2017, 36, 877-892.	1.8	16
49	Drivers of nitrogen transfer in stream food webs across continents. Ecology, 2017, 98, 3044-3055.	3.2	13
50	Riparian plant litter quality increases with latitude. Scientific Reports, 2017, 7, 10562.	3.3	53
51	Population variation in the trophic niche of the Trinidadian guppy from different predation regimes. Scientific Reports, 2017, 7, 5770.	3.3	20
52	The influence of dietary and whole-body nutrient content on the excretion of a vertebrate consumer. PLoS ONE, 2017, 12, e0187931.	2.5	15
53	Biotic and abiotic variables influencing plant litter breakdown in streams: a global study. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152664.	2.6	86
54	Freshwater vertebrate and invertebrate diversity patterns in an Andean-Amazon basin: implications for conservation efforts. Neotropical Biodiversity, 2016, 2, 99-114.	0.5	22

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55	Fossil clam shells reveal unintended carbon cycling consequences of Colorado River management. Royal Society Open Science, 2016, 3, 160170.	2.4	11
56	Highly unsaturated fatty acids in nature: what we know and what we need to learn. Oikos, 2016, 125, 749-760.	2.7	182
57	Fish introductions and light modulate food web fluxes in tropical streams: a wholeâ€ecosystem experimental approach. Ecology, 2016, 97, 3154-3166.	3.2	33
58	Towards catchment classification in dataâ€scarce regions. Ecohydrology, 2016, 9, 1235-1247.	2.4	25
59	Evaluating weather observations and the Climate Forecast System Reanalysis as inputs for hydrologic modelling in the tropics. Hydrological Processes, 2016, 30, 3466-3477.	2.6	33
60	The importance of terrestrial subsidies in stream food webs varies along a stream size gradient. Oikos, 2016, 125, 674-685.	2.7	60
61	Increased Light Availability Reduces the Importance of Bacterial Carbon in Headwater Stream Food Webs. Ecosystems, 2016, 19, 396-410.	3.4	25
62	Divergence across diet, time and populations rules out parallel evolution in the gut microbiomes of Trinidadian guppies. ISME Journal, 2015, 9, 1508-1522.	9.8	133
63	Population sizeâ€structureâ€dependent fitness and ecosystem consequences in Trinidadian guppies. Journal of Animal Ecology, 2015, 84, 955-968.	2.8	21
64	Intraspecific phenotypic differences in fish affect ecosystem processes as much as bottomâ€“up factors. Oikos, 2015, 124, 1181-1191.	2.7	38
65	Quantifying the top-down and bottom-up effects of a non-native grazer in freshwaters. Biological Invasions, 2015, 17, 1253-1266.	2.4	18
66	Changes in digestive traits and body nutritional composition accommodate a trophic niche shift in Trinidadian guppies. Oecologia, 2015, 177, 245-257.	2.0	31
67	Intraspecific variability modulates interspecific variability in animal organismal stoichiometry. Ecology and Evolution, 2014, 4, 1505-1515.	1.9	21
68	Metabolic stoichiometry and the ecology of fear in Trinidadian guppies: consequences for life histories and stream ecosystems. Oecologia, 2014, 176, 691-701.	2.0	47
69	Is Mobility a Fixed Trait? Summer Movement Patterns of Catostomids using PIT Telemetry. Transactions of the American Fisheries Society, 2014, 143, 1098-1111.	1.4	14
70	Population Structure of a Neotropical Migratory Fish: Contrasting Perspectives from Genetics and Otolith Microchemistry. Transactions of the American Fisheries Society, 2013, 142, 1192-1201.	1.4	38
71	How mobile are fish populations? Diel movement, population turnover, and site fidelity in suckers. Canadian Journal of Fisheries and Aquatic Sciences, 2013, 70, 666-677.	1.4	25
72	Invasive aquarium fish transform ecosystem nutrient dynamics. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20131520.	2.6	69

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73	Invasive Fishes Generate Biogeochemical Hotspots in a Nutrient-Limited System. PLoS ONE, 2013, 8, e54093.	2.5	92
74	Flow, nutrients, and light availability influence Neotropical epilithon biomass and stoichiometry. Freshwater Science, 2012, 31, 1019-1034.	1.8	55
75	Effects of Consumer Interactions on Benthic Resources and Ecosystem Processes in a Neotropical Stream. PLoS ONE, 2012, 7, e45230.	2.5	23
76	Widespread intraspecific organismal stoichiometry among populations of the Trinidadian guppy. Functional Ecology, 2012, 26, 666-676.	3.6	83
77	Nutrient diffusing substrata: a field comparison of commonly used methods to assess nutrient limitation. Journal of the North American Benthological Society, 2011, 30, 522-532.	3.1	43
78	A global experiment suggests climate warming will not accelerate litter decomposition in streams but might reduce carbon sequestration. Ecology Letters, 2011, 14, 289-294.	6.4	256
79	Leaf-litter decomposition across three flooding regimes in a seasonally flooded Amazonian watershed. Journal of Tropical Ecology, 2011, 27, 205-210.	1.1	23
80	Detritivorous fish indirectly reduce insect secondary production in a tropical river. Ecosphere, 2011, 2, art135.	2.2	14
81	Local adaptation in Trinidadian guppies alters ecosystem processes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3616-3621.	7.1	311
82	Patch dynamics and environmental heterogeneity in lotic ecosystems. Journal of the North American Benthological Society, 2010, 29, 84-99.	3.1	171
83	Sediment size and nutrients regulate denitrification in a tropical stream. Journal of the North American Benthological Society, 2009, 28, 480-490.	3.1	24
84	Crossing borders: promoting graduate research in the developing world. Frontiers in Ecology and the Environment, 2009, 7, 333-334.	4.0	0
85	FISH DISTRIBUTIONS AND NUTRIENT CYCLING IN STREAMS: CAN FISH CREATE BIOGEOCHEMICAL HOTSPOTS. Ecology, 2008, 89, 2335-2346.	3.2	249
86	Improving the fluorometric ammonium method: matrix effects, background fluorescence, and standard additions. Journal of the North American Benthological Society, 2007, 26, 167-177.	3.1	175
87	Fish extinctions alter nutrient recycling in tropical freshwaters. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4461-4466.	7.1	301
88	Loss of a Harvested Fish Species Disrupts Carbon Flow in a Diverse Tropical River. Science, 2006, 313, 833-836.	12.6	270
89	Nutrient recycling by two phosphorus-rich grazing catfish: the potential for phosphorus-limitation of fish growth. Oecologia, 2005, 146, 247-257.	2.0	91
90	TROPICAL FISHES AS BIOLOGICAL BULLDOZERS: DENSITY EFFECTS ON RESOURCE HETEROGENEITY AND SPECIES DIVERSITY. Ecology, 2004, 85, 2267-2278.	3.2	77

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91	LOCAL VS. LANDSCAPE CONTROLS ON PLANT SPECIES RICHNESS IN BEAVER MEADOWS. Ecology, 2003, 84, 3162-3173.	3.2	81
92	INTERACTIONS BETWEEN HERBIVOROUS FISHES AND LIMITING NUTRIENTS IN A TROPICAL STREAM ECOSYSTEM. Ecology, 2002, 83, 1831-1844.	3.2	124
93	An ecosystem engineer, the beaver, increases species richness at the landscape scale. Oecologia, 2002, 132, 96-101.	2.0	500
94	Stoichiometry of nutrient recycling by vertebrates in a tropical stream: linking species identity and ecosystem processes. Ecology Letters, 2002, 5, 285-293.	6.4	291
95	Lizard diversity and agricultural disturbance in a Caribbean forest landscape. Biodiversity and Conservation, 2001, 10, 711-723.	2.6	93
96	Ecosystem Engineering by a Dominant Detritivore in a Diverse Tropical Stream. Ecology, 1996, 77, 1845-1854.	3.2	296