

Alexander S Flecker

List of Publications by Year in descending order

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Version: 2024-02-01

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	An ecosystem engineer, the beaver, increases species richness at the landscape scale. <i>Oecologia</i> , 2002, 132, 96-101.	2.0	500
2	Local adaptation in Trinidadian guppies alters ecosystem processes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 3616-3621.	7.1	311
3	Fish extinctions alter nutrient recycling in tropical freshwaters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 4461-4466.	7.1	301
4	Ecosystem Engineering by a Dominant Detritivore in a Diverse Tropical Stream. <i>Ecology</i> , 1996, 77, 1845-1854.	3.2	296
5	Stoichiometry of nutrient recycling by vertebrates in a tropical stream: linking species identity and ecosystem processes. <i>Ecology Letters</i> , 2002, 5, 285-293.	6.4	291
6	Loss of a Harvested Fish Species Disrupts Carbon Flow in a Diverse Tropical River. <i>Science</i> , 2006, 313, 833-836.	12.6	270
7	A global experiment suggests climate warming will not accelerate litter decomposition in streams but might reduce carbon sequestration. <i>Ecology Letters</i> , 2011, 14, 289-294.	6.4	256
8	FISH DISTRIBUTIONS AND NUTRIENT CYCLING IN STREAMS: CAN FISH CREATE BIOGEOCHEMICAL HOTSPOTS. <i>Ecology</i> , 2008, 89, 2335-2346.	3.2	249
9	Highly unsaturated fatty acids in nature: what we know and what we need to learn. <i>Oikos</i> , 2016, 125, 749-760.	2.7	182
10	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
11	Patch dynamics and environmental heterogeneity in lotic ecosystems. <i>Journal of the North American Benthological Society</i> , 2010, 29, 84-99.	3.1	171
12	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> , 2018, 115, 12471-12476.	7.1	161
13	Ecosystem Function and Services of Aquatic Predators in the Anthropocene. <i>Trends in Ecology and Evolution</i> , 2019, 34, 369-383.	8.7	143
14	Divergence across diet, time and populations rules out parallel evolution in the gut microbiomes of Trinidadian guppies. <i>ISME Journal</i> , 2015, 9, 1508-1522.	9.8	133
15	Reducing greenhouse gas emissions of Amazon hydropower with strategic dam planning. <i>Nature Communications</i> , 2019, 10, 4281.	12.8	126
16	INTERACTIONS BETWEEN HERBIVOROUS FISHES AND LIMITING NUTRIENTS IN A TROPICAL STREAM ECOSYSTEM. <i>Ecology</i> , 2002, 83, 1831-1844.	3.2	124
17	Climate variability predicts thermal limits of aquatic insects across elevation and latitude. <i>Functional Ecology</i> , 2017, 31, 2118-2127.	3.6	104
18	Lizard diversity and agricultural disturbance in a Caribbean forest landscape. <i>Biodiversity and Conservation</i> , 2001, 10, 711-723.	2.6	93

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19	Invasive Fishes Generate Biogeochemical Hotspots in a Nutrient-Limited System. <i>PLoS ONE</i> , 2013, 8, e54093.	2.5	92
20	Nutrient recycling by two phosphorus-rich grazing catfish: the potential for phosphorus-limitation of fish growth. <i>Oecologia</i> , 2005, 146, 247-257.	2.0	91
21	Biotic and abiotic variables influencing plant litter breakdown in streams: a global study. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20152664.	2.6	86
22	Widespread intraspecific organismal stoichiometry among populations of the Trinidadian guppy. <i>Functional Ecology</i> , 2012, 26, 666-676.	3.6	83
23	LOCAL VS. LANDSCAPE CONTROLS ON PLANT SPECIES RICHNESS IN BEAVER MEADOWS. <i>Ecology</i> , 2003, 84, 3162-3173.	3.2	81
24	TROPICAL FISHES AS BIOLOGICAL BULLDOZERS: DENSITY EFFECTS ON RESOURCE HETEROGENEITY AND SPECIES DIVERSITY. <i>Ecology</i> , 2004, 85, 2267-2278.	3.2	77
25	Invasive aquarium fish transform ecosystem nutrient dynamics. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20131520.	2.6	69
26	The importance of terrestrial subsidies in stream food webs varies along a stream size gradient. <i>Oikos</i> , 2016, 125, 674-685.	2.7	60
27	Reducing adverse impacts of Amazon hydropower expansion. <i>Science</i> , 2022, 375, 753-760.	12.6	60
28	Flow, nutrients, and light availability influence Neotropical epilithon biomass and stoichiometry. <i>Freshwater Science</i> , 2012, 31, 1019-1034.	1.8	55
29	Aquatic and terrestrial resources are not nutritionally reciprocal for consumers. <i>Functional Ecology</i> , 2019, 33, 2042-2052.	3.6	54
30	Riparian plant litter quality increases with latitude. <i>Scientific Reports</i> , 2017, 7, 10562.	3.3	53
31	A global perspective on tropical montane rivers. <i>Science</i> , 2019, 365, 1124-1129.	12.6	52
32	Computational sustainability. <i>Communications of the ACM</i> , 2019, 62, 56-65.	4.5	49
33	Metabolic stoichiometry and the ecology of fear in Trinidadian guppies: consequences for life histories and stream ecosystems. <i>Oecologia</i> , 2014, 176, 691-701.	2.0	47
34	Nutrient diffusing substrata: a field comparison of commonly used methods to assess nutrient limitation. <i>Journal of the North American Benthological Society</i> , 2011, 30, 522-532.	3.1	43
35	Population Structure of a Neotropical Migratory Fish: Contrasting Perspectives from Genetics and Otolith Microchemistry. <i>Transactions of the American Fisheries Society</i> , 2013, 142, 1192-1201.	1.4	38
36	Intraspecific phenotypic differences in fish affect ecosystem processes as much as bottom-up factors. <i>Oikos</i> , 2015, 124, 1181-1191.	2.7	38

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37	Extreme streams: species persistence and genomic change in montane insect populations across a flooding gradient. <i>Ecology Letters</i> , 2018, 21, 525-535.	6.4	35
38	Fish introductions and light modulate food web fluxes in tropical streams: a whole-ecosystem experimental approach. <i>Ecology</i> , 2016, 97, 3154-3166.	3.2	33
39	Evaluating weather observations and the Climate Forecast System Reanalysis as inputs for hydrologic modelling in the tropics. <i>Hydrological Processes</i> , 2016, 30, 3466-3477.	2.6	33
40	Trophic responses to aquatic pollution of native and exotic livebearer fishes. <i>Science of the Total Environment</i> , 2019, 681, 503-515.	8.0	33
41	Impacts of detritivore diversity loss on instream decomposition are greatest in the tropics. <i>Nature Communications</i> , 2021, 12, 3700.	12.8	33
42	Changes in digestive traits and body nutritional composition accommodate a trophic niche shift in Trinidadian guppies. <i>Oecologia</i> , 2015, 177, 245-257.	2.0	31
43	Hydropeaking Operations of Two Run-of-River Mega-Dams Alter Downstream Hydrology of the Largest Amazon Tributary. <i>Frontiers in Environmental Science</i> , 2020, 8, .	3.3	31
44	Latitude dictates plant diversity effects on instream decomposition. <i>Science Advances</i> , 2021, 7, .	10.3	27
45	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> , 2021, 27, 297-311.	9.5	26
46	How mobile are fish populations? Diel movement, population turnover, and site fidelity in suckers. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2013, 70, 666-677.	1.4	25
47	Towards catchment classification in data-scarce regions. <i>Ecohydrology</i> , 2016, 9, 1235-1247.	2.4	25
48	Increased Light Availability Reduces the Importance of Bacterial Carbon in Headwater Stream Food Webs. <i>Ecosystems</i> , 2016, 19, 396-410.	3.4	25
49	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
50	Leaf-litter decomposition across three flooding regimes in a seasonally flooded Amazonian watershed. <i>Journal of Tropical Ecology</i> , 2011, 27, 205-210.	1.1	23
51	Effects of Consumer Interactions on Benthic Resources and Ecosystem Processes in a Neotropical Stream. <i>PLoS ONE</i> , 2012, 7, e45230.	2.5	23
52	Freshwater vertebrate and invertebrate diversity patterns in an Andean-Amazon basin: implications for conservation efforts. <i>Neotropical Biodiversity</i> , 2016, 2, 99-114.	0.5	22
53	Conversion efficiency of alpha linolenic acid to omega-3 highly unsaturated fatty acids in aerial insectivore chicks. <i>Journal of Experimental Biology</i> , 2018, 221, .	1.7	22
54	Intraspecific variability modulates interspecific variability in animal organismal stoichiometry. <i>Ecology and Evolution</i> , 2014, 4, 1505-1515.	1.9	21

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55	Population sizeâ€structureâ€dependent fitness and ecosystem consequences in Trinidadian guppies. <i>Journal of Animal Ecology</i> , 2015, 84, 955-968.	2.8	21
56	Population variation in the trophic niche of the Trinidadian guppy from different predation regimes. <i>Scientific Reports</i> , 2017, 7, 5770.	3.3	20
57	Declining diversity of wild-caught species puts dietary nutrient supplies at risk. <i>Science Advances</i> , 2021, 7, .	10.3	20
58	Environmental flows in the context of unconventional natural gas development in the <sc>M</sc>arcellus <sc>S</sc>hale. <i>Ecological Applications</i> , 2017, 27, 37-55.	3.8	19
59	Quantifying the top-down and bottom-up effects of a non-native grazer in freshwaters. <i>Biological Invasions</i> , 2015, 17, 1253-1266.	2.4	18
60	Climate change may impair electricity generation and economic viability of future Amazon hydropower. <i>Global Environmental Change</i> , 2021, 71, 102383.	7.8	18
61	Strategic planning of hydropower development: balancing benefits and socioenvironmental costs. <i>Current Opinion in Environmental Sustainability</i> , 2022, 56, 101175.	6.3	18
62	Emergent Freshwater Insects Serve as Subsidies of Methylmercury and Beneficial Fatty Acids for Riparian Predators Across an Agricultural Gradient. <i>Environmental Science & Technology</i> , 2021, 55, 5868-5877.	10.0	17
63	Nonnative fish stocking alters stream ecosystem nutrient dynamics. <i>Ecological Applications</i> , 2017, 27, 956-965.	3.8	16
64	Limited seasonal variation in food quality and foodweb structure in an Adirondack stream: insights from fatty acids. <i>Freshwater Science</i> , 2017, 36, 877-892.	1.8	16
65	The influence of dietary and whole-body nutrient content on the excretion of a vertebrate consumer. <i>PLoS ONE</i> , 2017, 12, e0187931.	2.5	15
66	Detritivorous fish indirectly reduce insect secondary production in a tropical river. <i>Ecosphere</i> , 2011, 2, art135.	2.2	14
67	Is Mobility a Fixed Trait? Summer Movement Patterns of Catostomids using PIT Telemetry. <i>Transactions of the American Fisheries Society</i> , 2014, 143, 1098-1111.	1.4	14
68	Streamlined ecoâ€engineering approach helps define environmental flows for tropical Andean headwaters. <i>Freshwater Biology</i> , 2019, 64, 1315-1325.	2.4	14
69	Substitution of inland fisheries with aquaculture and chicken undermines human nutrition in the Peruvian Amazon. <i>Nature Food</i> , 2021, 2, 192-197.	14.0	14
70	Drivers of nitrogen transfer in stream food webs across continents. <i>Ecology</i> , 2017, 98, 3044-3055.	3.2	13
71	A machine learning approach to identify barriers in stream networks demonstrates high prevalence of unmapped riverine dams. <i>Journal of Environmental Management</i> , 2022, 302, 113952.	7.8	13
72	Extreme flooding decreases stream consumer autochthony by increasing detrital resource availability. <i>Freshwater Biology</i> , 2018, 63, 1483-1497.	2.4	12

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73	Validating anthropogenic threat maps as a tool for assessing river ecological integrity in Andean Amazon basins. <i>PeerJ</i> , 2019, 7, e8060.	2.0	12
74	Fossil clam shells reveal unintended carbon cycling consequences of Colorado River management. <i>Royal Society Open Science</i> , 2016, 3, 160170.	2.4	11
75	Consumer movement dynamics as hidden drivers of stream habitat structure: suckers as ecosystem engineers on the night shift. <i>Oikos</i> , 2020, 129, 194-208.	2.7	11
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> , 2020, 115, 106372.	6.3	11
77	Nutrient recycling by insect and fish communities in high-elevation tropical streams. <i>Hydrobiologia</i> , 2019, 838, 13-28.	2.0	10
78	Fasting or fear: disentangling the roles of predation risk and food deprivation in the nitrogen metabolism of consumers. <i>Ecology</i> , 2018, 99, 681-689.	3.2	9
79	Determinants of food resource assimilation by stream insects along a tropical elevation gradient. <i>Oecologia</i> , 2018, 187, 731-744.	2.0	9
80	A unifying framework for analyzing temporal changes in functional and taxonomic diversity along disturbance gradients. <i>Ecology</i> , 2021, 102, e03503.	3.2	9
81	Nitrogen pollution promotes changes in the niche space of fish communities. <i>Oecologia</i> , 2021, 197, 485-500.	2.0	9
82	<scp>NEOTROPICAL FRESHWATER FISHES</scp>: A dataset of occurrence and abundance of freshwater fishes in the Neotropics. <i>Ecology</i> , 2023, 104, e3713.	3.2	7
83	Biodiversity underpins fisheries resilience to exploitation in the Amazon river basin. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2022, 289, .	2.6	7
84	Combined effects of hydrologic alteration and cyprinid fish in mediating biogeochemical processes in a Mediterranean stream. <i>Science of the Total Environment</i> , 2017, 601-602, 1217-1225.	8.0	6
85	Aquatic Predators Influence Micronutrients: Important but Understudied. <i>Trends in Ecology and Evolution</i> , 2019, 34, 882-883.	8.7	5
86	A whole-ecosystem experiment reveals flow-induced shifts in a stream community. <i>Communications Biology</i> , 2022, 5, 420.	4.4	5
87	Boosting Efficiency for Computing the Pareto Frontier on Tree Structured Networks. <i>Lecture Notes in Computer Science</i> , 2018, , 263-279.	1.3	4
88	A New Method to Reconstruct Quantitative Food Webs and Nutrient Flows from Isotope Tracer Addition Experiments. <i>American Naturalist</i> , 2020, 195, 964-985.	2.1	4
89	Differences in nutrient mineralisation between native and invasive grazing catfish during the invasion process. <i>Austral Ecology</i> , 2021, 46, 290-302.	1.5	4
90	Chapter 3: Biological diversity and ecological networks in the Amazon. , 2021, , .		4

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91	Efficiently Optimizing for Dendritic Connectivity on Tree-Structured Networks in a Multi-Objective Framework. , 2018, , .		3
92	Chapter 28: Restoration options for the Amazon. , 2021, , .		2
93	Crossing borders: promoting graduate research in the developing world. <i>Frontiers in Ecology and the Environment</i> , 2009, 7, 333-334.	4.0	0
94	The experimental range extension of guppies (<i>Poecilia reticulata</i>) influences the metabolic activity of tropical streams. <i>Oecologia</i> , 2021, 195, 1053-1069.	2.0	0
95	Chapter 29: Restoration priorities and benefits within landscapes and catchments and across the Amazon basin. , 2021, , .		0
96	Chapter 27: Conservation measures to counter the main threats to Amazonian biodiversity. , 2021, , .		0