Michael J Vanni

List of Publications by Year
in descending order

108	11,066	38720 50	30058 103
papers	citations	h-index	g-index

108	108	108	9964
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lakes and reservoirs as regulators of carbon cycling and climate. Limnology and Oceanography, 2009, 54, 2298-2314.	1.6	1,977
2	Detritus, trophic dynamics and biodiversity. Ecology Letters, 2004, 7, 584-600.	3.0	948
3	Nutrient Cycling by Animals in Freshwater Ecosystems. Annual Review of Ecology, Evolution, and Systematics, 2002, 33, 341-370.	6.7	850
4	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.	3.3	301
5	Stoichiometry of nutrient recycling by vertebrates in a tropical stream: linking species identity and ecosystem processes. Ecology Letters, 2002, 5, 285-293.	3.0	291
6	Functional ecology of fish: current approaches and future challenges. Aquatic Sciences, 2017, 79, 783-801.	0.6	270
7	FISH DISTRIBUTIONS AND NUTRIENT CYCLING IN STREAMS: CAN FISH CREATE BIOGEOCHEMICAL HOTSPOTS. Ecology, 2008, 89, 2335-2346.	1.5	249
8	NUTRIENT RECYCLING AND HERBIVORY AS MECHANISMS IN THE â€œTOPâ€“DOWNâ€•EFFECT OF FISH ON ALGAE IN LAKES. Ecology, 1997, 78, 21-40.	1.5	218
9	Ecosystem respiration: Drivers of daily variability and background respiration in lakes around the globe. Limnology and Oceanography, 2013, 58, 849-866.	1.6	195
10	Effects of Food Availability and Fish Predation on a Zooplankton Community. Ecological Monographs, 1987, 57, 61-88.	2.4	189
11	Trophic Cascades and Phytoplankton Community Structure. Ecology, 1990, 71, 921-937.	1.5	186
12	Light, nutrients, and food-chain length constrain planktonic energy transfer efficiency across multiple trophic levels. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18408-18412.	3.3	185
13	Title is missing!. Biogeochemistry, 2001, 54, 85-114.	1.7	184
14	Animating the Carbon Cycle. Ecosystems, 2014, 17, 344-359.	1.6	168
15	Consumerâ€driven nutrient dynamics in freshwater ecosystems: from individuals to ecosystems. Biological Reviews, 2017, 92, 2003-2023.	4.7	159
16	Effects of Nutrients and Zooplankton Size on the Structure of a Phytoplankton Community. Ecology, 1987, 68, 624-635.	1.5	158
17	Competition in zooplankton communities: Suppression of small species by Daphnia pulex1. Limnology and Oceanography, 1986, 31, 1039-1056.	1.6	150
18	Release rates and potential fates of nitrogen and phosphorus from sediments in a eutrophic reservoir. Freshwater Biology, 2005, 50, 301-322.	1.2	148

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19	Seasonal patterns of grazing and nutrient limitation of phytoplankton in a eutrophic lake. Limnology and Oceanography, 1990, 35, 697-709.	1.6	135
20	Seasonal regulation of Daphnia populations by planktivorous fish: Implications for the spring clearâ€water phase. Limnology and Oceanography, 1990, 35, 1718-1733.	1.6	132
21	Effects on lower trophic levels of massive fish mortality. Nature, 1990, 344, 333-335.	13.7	129
22	INTERACTIONS BETWEEN HERBIVOROUS FISHES AND LIMITING NUTRIENTS IN A TROPICAL STREAM ECOSYSTEM. Ecology, 2002, 83, 1831-1844.	1.5	124
23	Tubeâ€dwelling invertebrates: tiny ecosystem engineers have large effects in lake ecosystems. Ecological Monographs, 2015, 85, 333-351.	2.4	122
24	Predicting nutrient excretion of aquatic animals with metabolic ecology and ecological stoichiometry: a global synthesis. Ecology, 2016, 97, 3460-3471.	1.5	114
25	Zooplankton Assemblages in Fishless Bog Lakes: Influence of Biotic and Abiotic Factors. Ecology, 1993, 74, 2361-2380.	1.5	113
26	Linking Landscapes and Food Webs: Effects of Omnivorous Fish and Watersheds on Reservoir Ecosystems. BioScience, 2005, 55, 155.	2.2	113
27	NUTRIENT CYCLING BY FISH SUPPORTS RELATIVELY MORE PRIMARY PRODUCTION AS LAKE PRODUCTIVITY INCREASES. Ecology, 2006, 87, 1696-1709.	1.5	112
28	COMPARING RESOURCE PULSES IN AQUATIC AND TERRESTRIAL ECOSYSTEMS. Ecology, 2008, 89, 647-659.	1.5	112
29	Freshwater Zooplankton Community Structure: Introduction of Large Invertebrate Predators and Large Herbivores to a Small Species Community. Canadian Journal of Fisheries and Aquatic Sciences, 1988, 45, 1758-1770.	0.7	110
30	Phytoplankton primary production and photosynthetic parameters in reservoirs along a gradient of watershed land use. Limnology and Oceanography, 2003, 48, 608-617.	1.6	109
31	Ontogeny, diet shifts, and nutrient stoichiometry in fish. Oikos, 2007, 116, 1663-1674.	1.2	106
32	Moving on up: can results from simple aquatic mesocosm experiments be applied across broad spatial scales?. Freshwater Biology, 2011, 56, 279-291.	1.2	104
33	LAGOS-NE: a multi-scaled geospatial and temporal database of lake ecological context and water quality for thousands of US lakes. GigaScience, 2017, 6, 1-22.	3.3	102
34	"Top-Down" Trophic Interactions in Lakes: Effects of Fish on Nutrient Dynamics. Ecology, 1997, 78, 1.	1.5	101
35	Food quality effects on life history traits and fitness in the generalist herbivore Daphnia. Oecologia, 1992, 92, 48-57.	0.9	98
36	EFFECTS OF GIZZARD SHAD ON PHYTOPLANKTON AND NUTRIENT DYNAMICS: ROLE OF SEDIMENT FEEDING AND FISH SIZE. Ecology, 2000, 81, 1701-1719.	1.5	98

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37	Spatial and seasonal variation in nutrient excretion by benthic invertebrates in a eutrophic reservoir. Freshwater Biology, 2002, 47, 1107-1121.	1.2	98
38	When are fish sources vs. sinks of nutrients in lake ecosystems?. Ecology, 2013, 94, 2195-2206.	1.5	93
39	Interactive effects of light and nutrients on phytoplankton stoichiometry. Oecologia, 2006, 149, 676-689.	0.9	92
40	Nutrient recycling by two phosphorus-rich grazing catfish: the potential for phosphorus-limitation of fish growth. Oecologia, 2005, 146, 247-257.	0.9	91
41	Nutrient stoichiometry of linked catchment-lake systems along a gradient of land use. Freshwater Biology, 2011, 56, 791-811.	1.2	88
42	Biomass-Dependent Diet Shifts in Omnivorous Gizzard Shad: Implications for Growth, Food Web, and Ecosystem Effects. Transactions of the American Fisheries Society, 2002, 131, 40-54.	0.6	81
43	Climate and land use interactively affect lake phytoplankton nutrient limitation status. Ecology, 2015, 96, 392-402.	1.5	75
44	Temperate reservoirs are large carbon sinks and small CO₂ sources: Results from highâ€resolution carbon budgets. Global Biogeochemical Cycles, 2013, 27, 52-64.	1.9	73
45	Fish Predation and Zooplankton Demography Indirect Effects. Ecology, 1986, 67, 337-354.	1.5	70
46	Stoichiometry of nutrient excretion by fish: interspecific variation in a hypereutrophic lake. Oikos, 2007, 116, 259-270.	1.2	70
47	Precipitation, landscape properties and land use interactively affect water quality of tropical freshwaters. Science of the Total Environment, 2020, 716, 137044.	3.9	68
48	ALLOCHTHONOUS SUBSIDY OF PERIODICAL CICADAS AFFECTS THE DYNAMICS AND STABILITY OF POND COMMUNITIES. Ecology, 2007, 88, 2174-2186.	1.5	66
49	â€œTOPâ€“DOWNâ€•TROPHIC INTERACTIONS IN LAKES: EFFECTS OF FISH ON NUTRIENT DYNAMICS. Ecology, 1997, 78, 1-20.	1.5	60
50	Regeneration of nitrogen and phosphorus by bluegill and gizzard shad: effect of feeding history. Canadian Journal of Fisheries and Aquatic Sciences, 1995, 52, 2327-2338.	0.7	57
51	Nitrate, ammonium, and phosphorus drive seasonal nutrient limitation of chlorophytes, cyanobacteria, and diatoms in a hyperâ€eutrophic reservoir. Limnology and Oceanography, 2020, 65, 962-978.	1.6	54
52	Detritivory and the stoichiometry of nutrient cycling by a dominant fish species in lakes of varying productivity. Oikos, 2006, 114, 419-430.	1.2	52
53	Water Quality Trends and Changing Agricultural Practices in a Midwest U.S. Watershed, 1994â€“2006. Journal of Environmental Quality, 2008, 37, 1862-1874.	1.0	52
54	Feedbacks of consumer nutrient recycling on producer biomass and stoichiometry: separating direct and indirect effects. Oikos, 2009, 118, 1732-1742.	1.2	52

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55	Nutrient and light limitation of reservoir phytoplankton in relation to storm-mediated pulses in stream discharge. Archiv FÃ¼r Hydrobiologie, 2006, 167, 421-445.	1.1	50
56	Predicting eutrophication status in reservoirs at large spatial scales using landscape and morphometric variables. Inland Waters, 2015, 5, 203-214.	1.1	41
57	Ecological responses to simulated benthic-derived nutrient subsidies mediated by omnivorous fish. Freshwater Biology, 2005, 50, 1864-1881.	1.2	39
58	Dynamics of a Boreal Lake Ecosystem during a Long-Term Manipulation of Top Predators. Ecosystems, 2005, 8, 603-618.	1.6	39
59	Terrestrial support of detritivorous fish populations decreases with watershed size. Ecosphere, 2011, 2, art76.	1.0	38
60	Intraspecific variation in prey quality: a comparison of nutrient presence in prey and nutrient extraction by predators. Oikos, 2010, 119, 350-358.	1.2	37
61	Hydrogeomorphic features mediate the effects of land use/cover on reservoir productivity and food webs. Limnology and Oceanography, 2008, 53, 1420-1433.	1.6	35
62	Deposition and decomposition of periodical cicadas (Homoptera: Cicadidae:Magicicada) in woodland aquatic ecosystems. Journal of the North American Benthological Society, 2009, 28, 181-195.	3.0	34
63	Burial rates and stoichiometry of sedimentary carbon, nitrogen and phosphorus in <scp>M</scp>idwestern <scp>US</scp> reservoirs. Freshwater Biology, 2014, 59, 2342-2353.	1.2	32
64	Stream Nitrogen and Phosphorus Loads Are Differentially Affected by Storm Events and the Difference May Be Exacerbated by Conservation Tillage. Environmental Science & Technology, 2019, 53, 5613-5621.	4.6	32
65	Ontogenetic variation in the body stoichiometry of two fish species. Oecologia, 2015, 179, 329-341.	0.9	31
66	The impact of two Chaoborus species on a zooplankton community. Canadian Journal of Zoology, 1990, 68, 981-985.	0.4	30
67	Demographic and life history response of the cladoceranBosmina longirostris to variation in predator abundance. Oecologia, 1993, 95, 70-80.	0.9	27
68	Phytoplankton and cyanobacteria abundances in midâ€21st century lakes depend strongly on future land use and climate projections. Global Change Biology, 2021, 27, 6409-6422.	4.2	27
69	Phytoplankton communities and stoichiometry are interactively affected by light, nutrients, and fish. Limnology and Oceanography, 2011, 56, 1959-1975.	1.6	26
70	Predicting Crappie Recruitment in Ohio Reservoirs with Spawning Stock Size, Larval Density, and Chlorophyll Concentrations. North American Journal of Fisheries Management, 2006, 26, 1-12.	0.5	23
71	Patterns of CO2 concentration and inorganic carbon limitation of phytoplankton biomass in agriculturally eutrophic lakes. Water Research, 2021, 190, 116715.	5.3	23
72	Light and nutrients regulate energy transfer through benthic and pelagic food chains. Oikos, 2015, 124, 1648-1663.	1.2	22

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73	Nutrient regeneration by zooplankton: effects on nutrient limitation of phytoplankton in a eutrophic lake. Journal of Plankton Research, 1991, 13, 573-588.	0.8	21
74	Stream Nitrogen, Phosphorus, and Sediment Concentrations Show Contrasting Longâ€term Trends Associated with Agricultural Change. Journal of Environmental Quality, 2018, 47, 1513-1521.	1.0	20
75	Increased light availability and nutrient cycling by fish provide resilience against reversing eutrophication in an agriculturally impacted reservoir. Limnology and Oceanography, 2018, 63, 2647-2660.	1.6	19
76	Spatial and Temporal Variability of Nutrient Dynamics and Ecosystem Metabolism in a Hyper-eutrophic Reservoir Differ Between a Wet and Dry Year. Ecosystems, 2021, 24, 68-88.	1.6	19
77	Microcystin concentrations can be predicted with phytoplankton biomass and watershed morphology. Inland Waters, 2018, 8, 273-283.	1.1	18
78	Exposure Times to the Spring Atrazine Flush Along a Streamâ€Reservoir System¹. Journal of the American Water Resources Association, 2012, 48, 616-634.	1.0	17
79	The fate of phosphorus in decomposing fish carcasses: a mesocosm experiment. Freshwater Biology, 2015, 60, 479-489.	1.2	17
80	The importance of nutrient supply by fish excretion and watershed streams to a eutrophic lake varies with temporal scale over 19Âyears. Biogeochemistry, 2018, 140, 233-253.	1.7	15
81	Canopy cover and anurans: nutrients are the most important predictor of growth and development. Canadian Journal of Zoology, 2016, 94, 225-232.	0.4	14
82	Carnivore identity mediates the effects of light and nutrients on aquatic foodâ€chain efficiency. Freshwater Biology, 2016, 61, 1492-1508.	1.2	14
83	Temporal trends in methane emissions from a small eutrophic reservoir: the key role of a spring burst. Biogeosciences, 2021, 18, 5291-5311.	1.3	14
84	The relative importance of heterotrophic bacteria to pelagic ecosystem dynamics varies with reservoir trophic state. Limnology and Oceanography, 2009, 54, 2143-2156.	1.6	12
85	New and regenerated primary production in a productive reservoir ecosystem. Canadian Journal of Fisheries and Aquatic Sciences, 2010, 67, 278-287.	0.7	12
86	Assessing uncertainty in annual nitrogen, phosphorus, and suspended sediment load estimates in three agricultural streams using a 21-year dataset. Environmental Monitoring and Assessment, 2018, 190, 91.	1.3	12
87	Light and nutrient supply mediate intraspecific variation in the nutrient stoichiometry of juvenile fish. Ecosphere, 2016, 7, e01452.	1.0	10
88	Ontogenetic diet shifts produce tradeâ€offs in elemental imbalance in bluegill sunfish. Freshwater Biology, 2016, 61, 800-813.	1.2	9
89	Response to comments on â€œUncertainty principle in niche assessment: A solution to the dilemma redundancy vs. competitive exclusion, and some analytical consequencesâ€• Ecological Modelling, 2016, 341, 1-4.	1.2	9
90	Nutrient excretion by fish supports a variable but significant proportion of lake primary productivity over 15 years. Ecology, 2021, 102, e03364.	1.5	8

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91	Differential effects of elevated nutrient and sediment inputs on survival, growth and biomass of a common larval fish species (Dorosoma cepedianum). Freshwater Biology, 2010, 55, 654-669.	1.2	7
92	Degrees of freedom: Definitions and their minimum and most meaningful combination for the modelling of ecosystem dynamics with the help of physical principles. Ecological Modelling, 2019, 392, 226-235.	1.2	7
93	Global data set of long-term summertime vertical temperature profiles in 153 lakes. Scientific Data, 2021, 8, 200.	2.4	7
94	BIOLOGICAL CONTROL OF NUISANCE ALGAE BYDAPHNIA PULEX:EXPERIMENTAL STUDIES. Lake and Reservoir Management, 1984, 1, 151-156.	0.4	6
95	Quantifying pelagic phosphorus regeneration using three methods in lakes of varying productivity. Inland Waters, 2016, 6, 509-522.	1.1	6
96	Exploring the analytical consequences of ecological subjects unwittingly neglected by the mainstream of evolutionary thought. Ecological Modelling, 2017, 355, 70-83.	1.2	5
97	Thermostatistical distribution of a trophic energy proxy: Extension for modelling energy pyramids at the inter-taxocene scale and under non-stationary conditions. Ecological Modelling, 2017, 361, 113-121.	1.2	5
98	Estimating pelagic primary production in lakes: Comparison of 14 C incubation and freeâ€water O 2 approaches. Limnology and Oceanography: Methods, 2022, 20, 34-45.	1.0	5
99	Assessment of ecosystem trophodynamic power: A model based on the power equation for an oscillating string. Ecological Modelling, 2017, 362, 80-86.	1.2	4
100	Invasive mussels regulate nutrient cycling in the largest freshwater ecosystem on Earth. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	4
101	Effects of Gizzard Shad on Phytoplankton and Nutrient Dynamics: Role of Sediment Feeding and Fish Size. Ecology, 2000, 81, 1701.	1.5	4
102	Temporal patterns in sediment, carbon, and nutrient burial in ponds associated with changing agricultural tillage. Biogeochemistry, 2022, 159, 87-102.	1.7	3
103	Trophic Transfer Efficiency in Lakes. Ecosystems, 0, , .	1.6	2
104	Additional empirical evidence on the intrinsic trend to stationarity in the long run and the nested relationship between abiotic, biotic and anthropogenic factors starting from the organic biophysics of ecosystems (OBEC). Ecological Modelling, 2018, 383, 23-30.	1.2	1
105	You Live in a Watershed! Informal Environmental Science Education with a State Park Exhibit. Applied Environmental Education and Communication, 2020, 19, 74-87.	0.6	1
106	Detecting and modeling changes in a time series of proportions. Annals of Applied Statistics, 2022, 16, .	0.5	1
107	2002 ASLO AWARD NOMINATIONS. Limnology and Oceanography Bulletin, 2001, 10, 48-49.	0.2	0
108	Nutrient and sediment concentrations in three agriculturally impacted streams over a 15-year period. Ecology, 2013, 94, 978-978.	1.5	0