Peter M Vitousek

List of Publications by Year in descending order

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75 papers 20,067 citations

71102 41 h-index 70 g-index

78 all docs

78 docs citations

78 times ranked

17345 citing authors

#	Article	IF	CITATIONS
1	Foliar ẟ15N patterns in legumes and non-N fixers across a climate gradient, Hawaiʻi Island, USA. Oecologia, 2022, 198, 229-242.	2.0	2
2	Environmental filtering controls soil biodiversity in wet tropical ecosystems. Soil Biology and Biochemistry, 2022, 166, 108571.	8.8	3
3	Exploring global changes in agricultural ammonia emissions and their contribution to nitrogen deposition since 1980. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2121998119.	7.1	69
4	Constraints of Climate and Age on Soil Development in Hawaiâ€~i. , 2022, , 49-88.		3
5	Diversity of putative ericoid mycorrhizal fungi increases with soil age and progressive phosphorus limitation across a 4.1-million-year chronosequence. FEMS Microbiology Ecology, 2021, 97, .	2.7	10
6	Nitrogen deposition accelerates soil carbon sequestration in tropical forests. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	120
7	Soil-Food-Environment-Health Nexus for Sustainable Development. Research, 2021, 2021, 9804807.	5.7	15
8	A "toy―model of biogeochemical dynamics on climate gradients. Biogeochemistry, 2021, 154, 183-210.	3.5	9
9	Changes in belowground biodiversity during ecosystem development. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6891-6896.	7.1	151
10	Quantitative Analysis of Pedogenic Thresholds and Domains in Volcanic Soils. Ecosystems, 2019, 22, 1633-1649.	3.4	14
11	Nitrogen dynamics along a climate gradient on geologically old substrate, Kaua'i, Hawai'i. Oecologia, 2019, 189, 211-219.	2.0	6
12	Soil fertility response to Ulex europaeus invasion and restoration efforts. Biological Invasions, 2018, 20, 2777-2791.	2.4	10
13	Plant acclimation to long-term high nitrogen deposition in an N-rich tropical forest. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5187-5192.	7.1	164
14	Restoration of â€~Ä€ina Maloâ€~o on Hawaiâ€~i Island: Expanding Biocultural Relationships. Sustainability, 2018, 10, 3985.	3.2	29
15	Combining spectroscopic and isotopic techniques gives a dynamic view of phosphorus cycling in soil. Nature Communications, 2018, 9, 3226.	12.8	141
16	Policy distortions, farm size, and the overuse of agricultural chemicals in China. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7010-7015.	7.1	455
17	Controls of nitrogen cycling evaluated along a wellâ€characterized climate gradient. Ecology, 2017, 98, 1117-1129.	3.2	24
18	Convergence and contrast in the community structure of Bacteria, Fungi and Archaea along a tropical elevation–climate gradient. FEMS Microbiology Ecology, 2017, 93, .	2.7	84

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19	Restoring people and productivity to Puanui: challenges and opportunities in the restoration of an intensive rain-fed Hawaiian field system. Ecology and Society, 2017, 22, .	2.3	23
20	Parent material and pedogenic thresholds: observations and a simple model. Biogeochemistry, 2016, 130, 147-157.	3.5	18
21	Climateâ€driven thresholds for chemical weathering in postglacial soils of New Zealand. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1619-1634.	2.8	79
22	The soil and plant biogeochemistry sampling design for The National Ecological Observatory Network. Ecosphere, 2016, 7, e01234.	2.2	21
23	Evidence for a Historic Change Occurring in China. Environmental Science & Evidence & Ev	10.0	105
24	Strengthening Agronomy Research for Food Security and Environmental Quality. Environmental Science & E	10.0	13
25	Nitrogen fixation during decomposition of sugarcane (<i>Saccharum officinarum</i>) is an important contribution to nutrient supply in traditional dryland agricultural systems of Hawai'i. International Journal of Agricultural Sustainability, 2016, 14, 214-230.	3.5	21
26	Grassland ecology: Complexity of nutrient constraints. Nature Plants, 2015, 1, 15098.	9.3	11
27	Provincial food security in China: a quantitative risk assessment based on local food supply and demand trends. Food Security, 2015, 7, 621-632.	5.3	29
28	Identification and evaluation of risk factors related to provincial food insecurity in China. Journal of Risk Research, 2015, 18, 1184-1202.	2.6	10
29	Variation in Rapa Nui (Easter Island) land use indicates production and population peaks prior to European contact. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1025-1030.	7.1	74
30	Integrated reactive nitrogen budgets and future trends in China. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8792-8797.	7.1	430
31	Producing more grain with lower environmental costs. Nature, 2014, 514, 486-489.	27.8	1,292
32	Indicators of soil fertility and opportunities for precontact agriculture in Kona, Hawai'i. Ecosphere, 2014, 5, 1-20.	2.2	27
33	Insightful, Scholarly, and Synthetic: Eville Gorham and the Chemistry of Surface Waters. Bulletin of the Ecological Society of America, 2014, 95, 226-228.	0.2	0
34	Biological nitrogen fixation: rates, patterns and ecological controls in terrestrial ecosystems. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130119.	4.0	537
35	Enhanced nitrogen deposition over China. Nature, 2013, 494, 459-462.	27.8	2,009
36	An experiment for the world. Nature, 2013, 497, 33-35.	27.8	312

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37	Pedogenic Thresholds and Soil Process Domains in Basalt-Derived Soils. Ecosystems, 2013, 16, 1379-1395.	3.4	105
38	Pacific islands in the Anthropocene. Elementa, 2013, 1, .	3.2	6
39	Managing water, harvesting results. Frontiers in Ecology and the Environment, 2012, 10, 3-3.	4.0	2
40	The Ahupuaâ€~a of Puanui: A Resource for Understanding Hawaiian Rain-Fed Agriculture. Pacific Science, 2012, 66, 161-172.	0.6	33
41	Introduced Canopy Tree Species Effect on the Soil Microbial Community in a Montane Tropical Forest. Pacific Science, 2012, 66, 141-150.	0.6	8
42	Mineralogical controls on soil black carbon preservation. Global Biogeochemical Cycles, 2012, 26, .	4.9	61
43	Longâ€ŧerm carbon storage through retention of dissolved aromatic acids by reactive particles in soil. Global Change Biology, 2012, 18, 2594-2605.	9.5	236
44	Principles of Terrestrial Ecosystem Ecology. , 2011, , .		860
45	Are patterns in nutrient limitation belowground consistent with those aboveground: results from a 4 million year chronosequence. Biogeochemistry, 2011, 106, 323-336.	3.5	59
46	Dependence of Forest Structure and Dynamics on Substrate Age and Ecosystem Development. Ecosystems, 2011, 14, 1156-1167.	3.4	27
47	Erosion, Geological History, and Indigenous Agriculture: A Tale of Two Valleys. Ecosystems, 2010, 13, 782-793.	3.4	25
48	Prevalence of Tree Regeneration by Sprouting and Seeding Along a Rainfall Gradient in Hawai'i. Biotropica, 2010, 42, 80-86.	1.6	33
49	Understanding ecosystem retrogression. Ecological Monographs, 2010, 80, 509-529.	5.4	342
50	Terrestrial phosphorus limitation: mechanisms, implications, and nitrogen–phosphorus interactions. Ecological Applications, 2010, 20, 5-15.	3.8	1,969
51	Top-Down Analysis of Forest Structure and Biogeochemistry Across Hawaiian Landscapes. Pacific Science, 2010, 64, 359-366.	0.6	7
52	Landscape-level variation in forest structure and biogeochemistry across a substrate age gradient in Hawaii. Ecology, 2009, 90, 3074-3086.	3.2	42
53	Nitrogen in Agriculture: Balancing the Cost of an Essential Resource. Annual Review of Environment and Resources, 2009, 34, 97-125.	13.4	854
54	Precontact vegetation and soil nutrient status in the shadow of Kohala Volcano, Hawaii. Geomorphology, 2007, 89, 70-83.	2.6	49

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55	Nitrogen and Nature. Ambio, 2002, 31, 97-101.	5.5	208
56	Production and Resource Use Efficiencies in N- and P-Limited Tropical Forests: A Comparison of Responses to Long-term Fertilization. Ecosystems, 2001, 4, 646-657.	3.4	190
57	Input/Output Balances and Nitrogen Limitation in Terrestrial Ecosystems. , 2001, , 217-225.		21
58	Title is missing!. Biogeochemistry, 2000, 51, 283-302.	3.5	106
59	Climate Cycles, Geomorphological Change, and the Interpretation of Soil and Ecosystem Development. Ecosystems, 2000, 3, 522-533.	3.4	86
60	NUTRIENT LIMITATION OF DECOMPOSITION IN HAWAIIAN FORESTS. Ecology, 2000, 81, 1867-1877.	3.2	410
61	Nutrient Limitation of Decomposition in Hawaiian Forests. Ecology, 2000, 81, 1867.	3.2	17
62	The globalization of N deposition: ecosystem consequences in tropical environments. Biogeochemistry, 1999, 46, 67-83.	3.5	350
63	Ecosystem constraints to symbiotic nitrogen fixers: A simple model and its implications. Biogeochemistry, 1999, 46, 179-202.	3.5	190
64	Ecosystem constraints to symbiotic nitrogen fixers: a simple model and its implications. Biogeochemistry, 1999, 46, 179-202.	3.5	65
65	Ecosystem development on Hawaiian lava flows: biomass and species composition. Journal of Vegetation Science, 1998, 9, 17-26.	2.2	127
66	Technical Report: Human Alteration of the Global Nitrogen Cycle: Sources and Consequences., 1997, 7, 737.		217
67	PRIMARY PRODUCTIVITY AND ECOSYSTEM DEVELOPMENT ALONG AN ELEVATIONAL GRADIENT ON MAUNA LOA, HAWAI—I. Ecology, 1997, 78, 707-721.	3.2	226
68	Mineral control of soil organic carbon storage and turnover. Nature, 1997, 389, 170-173.	27.8	1,318
69	Nutrient limitation and soil development: Experimental test of a biogeochemical theory. Biogeochemistry, 1997, 37, 63-75.	3.5	626
70	Changes in Soil Phosphorus Fractions and Ecosystem Dynamics across a Long Chronosequence in Hawaii. Ecology, 1995, 76, 1407-1424.	3.2	824
71	Nutrient limitations to plant growth during primary succession in Hawaii Volcanoes National Park. Biogeochemistry, 1993, 23, 197-215.	3.5	245
72	The Mauna Loa environmental matrix: foliar and soil nutrients. Oecologia, 1992, 89, 372-382.	2.0	150

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73	Can Planted Forests Counteract Increasing Atmospheric Carbon Dioxide?. Journal of Environmental Quality, 1991, 20, 348-354.	2.0	96
74	Nitrogen limitation on land and in the sea: How can it occur?. Biogeochemistry, 1991, 13, 87.	3.5	2,801
75	Foliar 15N natural abundance in Hawaiian rainforest: patterns and possible mechanisms. Oecologia, 1989, 78, 383-388.	2.0	194