Benjamin Houlton

List of Publications by Year
in descending order

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73 papers	8,043 citations	101384 36 h-index	98622 67 g-index
80 all docs	80 docs citations	80 times ranked	8829 citing authors

#	Article	IF	Citations
1	Terrestrial phosphorus limitation: mechanisms, implications, and nitrogenâ€“phosphorus interactions. Ecological Applications, 2010, 20, 5-15.	1.8	1,969
2	A unifying framework for dinitrogen fixation in the terrestrial biosphere. Nature, 2008, 454, 327-330.	13.7	648
3	Nitrogen inputs accelerate phosphorus cycling rates across a wide variety of terrestrial ecosystems. New Phytologist, 2012, 193, 696-704.	3.5	607
4	Relationships among net primary productivity, nutrients and climate in tropical rain forest: a panâ€tropical analysis. Ecology Letters, 2011, 14, 939-947.	3.0	379
5	Isotopic evidence for large gaseous nitrogen losses from tropical rainforests. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8745-8750.	3.3	282
6	Patterns of new versus recycled primary production in the terrestrial biosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12733-12737.	3.3	270
7	A climate-driven switch in plant nitrogen acquisition within tropical forest communities. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8902-8906.	3.3	234
8	Triple Oxygen Isotope Analysis of Nitrate Using the Denitrifier Method and Thermal Decomposition of N2O. Analytical Chemistry, 2007, 79, 599-607.	3.2	226
9	Responses and feedbacks of coupled biogeochemical cycles to climate change: examples from terrestrial ecosystems. Frontiers in Ecology and the Environment, 2011, 9, 61-67.	1.9	214
10	Multiâ€element regulation of the tropical forest carbon cycle. Frontiers in Ecology and the Environment, 2011, 9, 9-17.	1.9	204
11	A model of biogeochemical cycles of carbon, nitrogen, and phosphorus including symbiotic nitrogen fixation and phosphatase production. Global Biogeochemical Cycles, 2007, 21, .	1.9	200
12	Microbial denitrification dominates nitrate losses from forest ecosystems. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1470-1474.	3.3	182
13	Imprint of denitrifying bacteria on the global terrestrial biosphere. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21713-21716.	3.3	181
14	Convergent evidence for widespread rock nitrogen sources in Earthâ€™s surface environment. Science, 2018, 360, 58-62.	6.0	166
15	Nitrogen constraints on terrestrial carbon uptake: Implications for the global carbonâ€climate feedback. Geophysical Research Letters, 2009, 36, .	1.5	156
16	Increased forest ecosystem carbon and nitrogen storage from nitrogen rich bedrock. Nature, 2011, 477, 78-81.	13.7	148
17	Grasslands may be more reliable carbon sinks than forests in California. Environmental Research Letters, 2018, 13, 074027.	2.2	142
18	Agriculture is a major source of NO _x pollution in California. Science Advances, 2018, 4, eaao3477.	4.7	139

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19	A World of Cobenefits: Solving the Global Nitrogen Challenge. Earth's Future, 2019, 7, 865-872.	2.4	122
20	Nutrient limitation of terrestrial freeâ€living nitrogen fixation. New Phytologist, 2018, 217, 1050-1061.	3.5	116
21	Nitrogen Dynamics in Ice Storm-Damaged Forest Ecosystems: Implications for Nitrogen Limitation Theory. Ecosystems, 2003, 6, 431-443.	1.6	105
22	Nitrogen Availability Reduces CMIP5 Projections of Twenty-First-Century Land Carbon Uptake*. Journal of Climate, 2015, 28, 2494-2511.	1.2	87
23	Greater than 99% consensus on human caused climate change in the peer-reviewed scientific literature. Environmental Research Letters, 2021, 16, 114005.	2.2	85
24	Substantial reorganization of China's tropical and subtropical forests: based on the permanent plots. Global Change Biology, 2014, 20, 240-250.	4.2	81
25	Isotopic identification of nitrogen hotspots across natural terrestrial ecosystems. Biogeosciences, 2012, 9, 3287-3304.	1.3	72
26	Intentional versus unintentional nitrogen use in the United States: trends, efficiency and implications. Biogeochemistry, 2013, 114, 11-23.	1.7	72
27	Coupled isotopic and processâ€based modeling of gaseous nitrogen losses from tropical rain forests. Global Biogeochemical Cycles, 2009, 23, .	1.9	68
28	Evidence for progressive phosphorus limitation over long-term ecosystem development: Examination of a biogeochemical paradigm. Plant and Soil, 2013, 367, 135-147.	1.8	64
29	Representation of nitrogen in climate change forecasts. Nature Climate Change, 2015, 5, 398-401.	8.1	59
30	Stable isotopic constraints on global soil organic carbon turnover. Biogeosciences, 2018, 15, 987-995.	1.3	52
31	Decadal Shift in Nitrogen Inputs and Fluxes Across the Contiguous United States: 2002â€“2012. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3104-3124.	1.3	51
32	Using indirect methods to constrain symbiotic nitrogen fixation rates: a case study from an Amazonian rain forest. Biogeochemistry, 2010, 99, 1-13.	1.7	44
33	Mineralization ratios of nitrogen and phosphorus from decomposing litter in temperate versus tropical forests. Global Ecology and Biogeography, 2016, 25, 335-346.	2.7	41
34	A new synthesis for terrestrial nitrogen inputs. Soil, 2015, 1, 381-397.	2.2	40
35	Plant stoichiometric responses to elevated CO2 vary with nitrogen and phosphorus inputs: Evidence from a global-scale meta-analysis. Scientific Reports, 2016, 5, 18225.	1.6	38
36	Iron controls over diâ€nitrogen fixation in karst tropical forest. Ecology, 2017, 98, 773-781.	1.5	37

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37	A nitrogen fertilization field study of carbon-13 and nitrogen-15 transfers in ectomycorrhizas of Pinus sabiniana. Oecologia, 2013, 173, 1439-1450.	0.9	34
38	Growth in the global N2 sink attributed to N fertilizer inputs over 1860 to 2000. Science of the Total Environment, 2017, 574, 1044-1053.	3.9	31
39	Global Carbon Sequestration Is Highly Sensitive to Modelâ€Based Formulations of Nitrogen Fixation. Global Biogeochemical Cycles, 2020, 34, e2019GB006296.	1.9	31
40	Direct quantification of longâ€term rock nitrogen inputs to temperate forest ecosystems. Ecology, 2016, 97, 54-64.	1.5	28
41	Intensive fertilizer use increases orchard N cycling and lowers net global warming potential. Science of the Total Environment, 2020, 722, 137889.	3.9	24
42	Role of Organic and Conservation Agriculture in Ammonia Emissions and Crop Productivity in China. Environmental Science & Technology, 2022, 56, 2977-2989.	4.6	23
43	Geochemical and tectonic uplift controls on rock nitrogen inputs across terrestrial ecosystems. Global Biogeochemical Cycles, 2016, 30, 333-349.	1.9	22
44	The soil and plant biogeochemistry sampling design for The National Ecological Observatory Network. Ecosphere, 2016, 7, e01234.	1.0	21
45	Coupled molecular and isotopic evidence for denitrifier controls over terrestrial nitrogen availability. ISME Journal, 2017, 11, 727-740.	4.4	20
46	Policy-enabled stabilization of nitrous oxide emissions from livestock production in China over 1978â€“2017. Nature Food, 2022, 3, 356-366.	6.2	20
47	Spatial Variation of Reactive Nitrogen Emissions From China's Croplands Codetermined by Regional Urbanization and Its Feedback to Global Climate Change. Geophysical Research Letters, 2020, 47, e2019GL086551.	1.5	18
48	Controls on soil microbial carbon use efficiency over long-term ecosystem development. Biogeochemistry, 2021, 152, 309-325.	1.7	17
49	Improving the social cost of nitrous oxide. Nature Climate Change, 2021, 11, 1008-1010.	8.1	16
50	Changing perspectives on terrestrial nitrogen cycling: The importance of weathering and evolved resourceâ€use traits for understanding ecosystem responses to global change. Functional Ecology, 2019, 33, 1818-1829.	1.7	14
51	Evidence for a uniformly small isotope effect of nitrogen leaching loss: results from disturbed ecosystems in seasonally dry climates. Oecologia, 2016, 181, 323-333.	0.9	13
52	Litterfall mass and nutrient fluxes over an altitudinal gradient in the coastal Atlantic Forest, Brazil. Journal of Tropical Ecology, 2017, 33, 261-269.	0.5	13
53	Bedrock nitrogen weathering stimulates biological nitrogen fixation. Ecology, 2019, 100, e02741.	1.5	13
54	Reconstructing continentalâ€scale variation in soil Î´¹⁵N: a machine learning approach in South America. Ecosphere, 2020, 11, e03223.	1.0	13

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55	Bedrock Weathering Controls on Terrestrial Carbonâ€Nitrogenâ€Climate Interactions. Global Biogeochemical Cycles, 2021, 35, e2020GB006933.	1.9	9
56	Nitrogen and the food system. One Earth, 2021, 4, 3-7.	3.6	6
57	A review of carbon farming impacts on nitrogen cycling, retention, and loss. Annals of the New York Academy of Sciences, 2021, 1505, 102-117.	1.8	6
58	Human-caused increases in reactive nitrogen burial in sediment of global lakes. Innovation(China), 2021, 2, 100158.	5.2	6
59	Biotic and Abiotic Controls on Dinitrogen Production in Coastal Sediments. Global Biogeochemical Cycles, 2021, 35, e2021GB007069.	1.9	5
60	Extrapolation of point measurements and fertilizer-only emission factors cannot capture statewide soil NO _x emissions. Science Advances, 2018, 4, eaau7373.	4.7	4
61	Control of the Nitrogen Isotope Composition of the Fungal Biomass: Evidence of Microbial Nitrogen Use Efficiency. Microbes and Environments, 2019, 34, 5-12.	0.7	4
62	Isotopic constraints on plant nitrogen acquisition strategies during ecosystem retrogression. Oecologia, 2020, 192, 603-614.	0.9	4
63	Plantâ€soil feedbacks on freeâ€living nitrogen fixation over geological time. Ecology, 2018, 99, 2496-2505.	1.5	3
64	Climate tipping point of nitrogen fixation. Nature Plants, 2022, 8, 196-197.	4.7	3
65	The Effects of Ice Storms on the Hydrology and Biogeochemistry of Forests. Ecological Studies, 2011, , 623-641.	0.4	2
66	Strong correspondence between nitrogen isotope composition of foliage and chlorin across a rainfall gradient: implications for paleo-reconstruction of the nitrogen cycle. Biogeosciences, 2019, 16, 3869-3882.	1.3	1
67	Nutrient Limitations of Carbon Uptake: From Leaves to Landscapes in a California Rangeland Ecosystem. Rangeland Ecology and Management, 2010, 63, 120-127.	1.1	0
68	Nitrogen fixation: Fixing evolution in global forests. Nature Plants, 2015, 1, 15205.	4.7	0
69	Bedrock Nitrogen Weathering Stimulates Biological Nitrogen Fixation. Bulletin of the Ecological Society of America, 2019, 100, e01562.	0.2	0
70	Thank You to Our 2019 Reviewers. Global Biogeochemical Cycles, 2020, 34, e2020GB006628.	1.9	0
71	Thank You to Our 2020 Reviewers. Global Biogeochemical Cycles, 2021, 35, e2021GB006998.	1.9	0
72	UC experts can lead on carbon dioxide removal. California Agriculture, 2019, 73, 69-72.	0.5	0

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73	Appreciating GBC Reviewers. Global Biogeochemical Cycles, 2022, 36, .	1.9	0