Benjamin Houlton

List of Publications by Citations

66 papers	5,887 citations	31 h-index	76 g-index
80 ext. papers	7,016 ext. citations	8.4 avg, IF	6.07 L-index

#	Paper	IF	Citations
66	Terrestrial phosphorus limitation: mechanisms, implications, and nitrogen-phosphorus interactions **2010**, 20, 5-15		1449
65	A unifying framework for dinitrogen fixation in the terrestrial biosphere. *Nature*, **2008**, 454, 327-30	50.4	535
64	Nitrogen inputs accelerate phosphorus cycling rates across a wide variety of terrestrial ecosystems. *New Phytologist*, **2012**, 193, 696-704	9.8	424
63	Relationships among net primary productivity, nutrients and climate in tropical rain forest: a pan-tropical analysis. *Ecology Letters*, **2011**, 14, 939-47	10	306
62	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, 8745-50	11.5	249
61	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, 12733-7	11.5	193
60	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, 8902-6	11.5	189
59	Multi-element regulation of the tropical forest carbon cycle. *Frontiers in Ecology and the Environment*, **2011**, 9, 9-17	5.5	175
58	Triple oxygen isotope analysis of nitrate using the denitrifier method and thermal decomposition of N2O. *Analytical Chemistry*, **2007**, 79, 599-607	7.8	174
57	A model of biogeochemical cycles of carbon, nitrogen, and phosphorus including symbiotic nitrogen fixation and phosphatase production. *Global Biogeochemical Cycles*, **2007**, 21,	5.9	163
56	Responses and feedbacks of coupled biogeochemical cycles to climate change: examples from terrestrial ecosystems. *Frontiers in Ecology and the Environment*, **2011**, 9, 61-67	5.5	159
55	Imprint of denitrifying bacteria on the global terrestrial biosphere. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 21713-6	11.5	149
54	Microbial denitrification dominates nitrate losses from forest ecosystems. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 1470-4	11.5	137
53	Nitrogen constraints on terrestrial carbon uptake: Implications for the global carbon-climate feedback. *Geophysical Research Letters*, **2009**, 36,	4.9	131
52	Increased forest ecosystem carbon and nitrogen storage from nitrogen rich bedrock. *Nature*, **2011**, 477, 78-81	50.4	116
51	Convergent evidence for widespread rock nitrogen sources in Earth's surface environment. *Science*, **2018**, 360, 58-62	33.3	109
50	Nitrogen Dynamics in Ice Storm-Damaged Forest Ecosystems: Implications for Nitrogen Limitation Theory. *Ecosystems*, **2003**, 6, 431-443	3.9	94

49	Agriculture is a major source of NO pollution in California. *Science Advances*, **2018**, 4, eaao3477	14.3	91
48	Grasslands may be more reliable carbon sinks than forests in California. *Environmental Research Letters*, **2018**, 13, 074027	6.2	78
47	Nutrient limitation of terrestrial free-living nitrogen fixation. *New Phytologist*, **2018**, 217, 1050-1061	9.8	71
46	Nitrogen Availability Reduces CMIP5 Projections of Twenty-First-Century Land Carbon Uptake*. *Journal of Climate*, **2015**, 28, 2494-2511	4.4	65
45	A world of co-benefits: Solving the global nitrogen challenge. *Earth's Future*, **2019**, 7, 1-8	7.9	61
44	Intentional versus unintentional nitrogen use in the United States: trends, efficiency and implications. *Biogeochemistry*, **2013**, 114, 11-23	3.8	60
43	Isotopic identification of nitrogen hotspots across natural terrestrial ecosystems. *Biogeosciences*, **2012**, 9, 3287-3304	4.6	58
42	Coupled isotopic and process-based modeling of gaseous nitrogen losses from tropical rain forests. *Global Biogeochemical Cycles*, **2009**, 23, n/a-n/a	5.9	56
41	Substantial reorganization of China's tropical and subtropical forests: based on the permanent plots. *Global Change Biology*, **2014**, 20, 240-50	11.4	55
40	Evidence for progressive phosphorus limitation over long-term ecosystem development: Examination of a biogeochemical paradigm. *Plant and Soil*, **2013**, 367, 135-147	4.2	39
39	Using indirect methods to constrain symbiotic nitrogen fixation rates: a case study from an Amazonian rain forest. *Biogeochemistry*, **2010**, 99, 1-13	3.8	37
38	A new synthesis for terrestrial nitrogen inputs. *Soil*, **2015**, 1, 381-397	5.8	35
37	Mineralization ratios of nitrogen and phosphorus from decomposing litter in temperate versus tropical forests. *Global Ecology and Biogeography*, **2016**, 25, 335-346	6.1	34
36	Stable isotopic constraints on global soil organic carbon turnover. *Biogeosciences*, **2018**, 15, 987-995	4.6	30
35	Decadal Shift in Nitrogen Inputs and Fluxes Across the Contiguous United States: 2002–2012. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 3104-3124	3.7	29
34	Iron controls over di-nitrogen fixation in karst tropical forest. *Ecology*, **2017**, 98, 773-781	4.6	28
33	Plant stoichiometric responses to elevated CO2 vary with nitrogen and phosphorus inputs: Evidence from a global-scale meta-analysis. *Scientific Reports*, **2015**, 5, 18225	4.9	28
32	Growth in the global N sink attributed to N fertilizer inputs over 1860 to 2000. *Science of the Total Environment*, **2017**, 574, 1044-1053	10.2	23

31	A nitrogen fertilization field study of carbon-13 and nitrogen-15 transfers in ectomycorrhizas of Pinus sabiniana. *Oecologia*, **2013**, 173, 1439-50	2.9	21
30	Direct quantification of long-term rock nitrogen inputs to temperate forest ecosystems. *Ecology*, **2016**, 97, 54-64	4.6	19
29	Geochemical and tectonic uplift controls on rock nitrogen inputs across terrestrial ecosystems. *Global Biogeochemical Cycles*, **2016**, 30, 333-349	5.9	15
28	Greater than 99% consensus on human caused climate change in the peer-reviewed scientific literature. *Environmental Research Letters*, **2021**, 16, 114005	6.2	15
27	Evidence for a uniformly small isotope effect of nitrogen leaching loss: results from disturbed ecosystems in seasonally dry climates. *Oecologia*, **2016**, 181, 323-33	2.9	11
26	Coupled molecular and isotopic evidence for denitrifier controls over terrestrial nitrogen availability. *ISME Journal*, **2017**, 11, 727-740	11.9	11
25	The soil and plant biogeochemistry sampling design for The National Ecological Observatory Network. *Ecosphere*, **2016**, 7, e01234	3.1	11
24	Global Carbon Sequestration Is Highly Sensitive to Model-Based Formulations of Nitrogen Fixation. *Global Biogeochemical Cycles*, **2020**, 34, e2019GB006296	5.9	11
23	Intensive fertilizer use increases orchard N cycling and lowers net global warming potential. *Science of the Total Environment*, **2020**, 722, 137889	10.2	9
22	Bedrock nitrogen weathering stimulates biological nitrogen fixation. *Ecology*, **2019**, 100, e02741	4.6	6
21	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	4.9	6
20	Changing perspectives on terrestrial nitrogen cycling: The importance of weathering and evolved resource-use traits for understanding ecosystem responses to global change. *Functional Ecology*, **2019**, 33, 1818-1829	5.6	5
19	Litterfall mass and nutrient fluxes over an altitudinal gradient in the coastal Atlantic Forest, Brazil. *Journal of Tropical Ecology*, **2017**, 33, 261-269	1.3	5
18	Control of the Nitrogen Isotope Composition of the Fungal Biomass: Evidence of Microbial Nitrogen Use Efficiency. *Microbes and Environments*, **2019**, 34, 5-12	2.6	4
17	Isotopic constraints on plant nitrogen acquisition strategies during ecosystem retrogression. *Oecologia*, **2020**, 192, 603-614	2.9	3
16	Isotopic identification of global nitrogen hotspots across natural terrestrial ecosystems		3
15	Controls on soil microbial carbon use efficiency over long-term ecosystem development. *Biogeochemistry*, **2021**, 152, 309-325	3.8	3
14	Extrapolation of point measurements and fertilizer-only emission factors cannot capture statewide soil NO emissions. *Science Advances*, **2018**, 4, eaau7373	14.3	3

13	Reconstructing continental-scale variation in soil δ15N: a machine learning approach in South America. *Ecosphere*, **2020**, 11, e03223	3.1	3
12	Plant-soil feedbacks on free-living nitrogen fixation over geological time. *Ecology*, **2018**, 99, 2496-2505	4.6	2
11	A new synthesis for terrestrial nitrogen inputs		2
10	The Effects of Ice Storms on the Hydrology and Biogeochemistry of Forests. *Ecological Studies*, **2011**, 623-641	1.1	2
9	Nitrogen and the food system. *One Earth*, **2021**, 4, 3-7	8.1	2
8	Role of Organic and Conservation Agriculture in Ammonia Emissions and Crop Productivity in China.. *Environmental Science & Technology*, **2022**,	10.3	1
7	Bedrock Weathering Controls on Terrestrial Carbon-Nitrogen-Climate Interactions. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006933	5.9	1
6	Human-caused increases in reactive nitrogen burial in sediment of global lakes. *Innovation(China)*, **2021**, 2, 100158	17.8	1
5	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	4.6	0
4	Biotic and Abiotic Controls on Dinitrogen Production in Coastal Sediments. *Global Biogeochemical Cycles*, **2021**, 35, e2021GB007069	5.9	0
3	Nitrogen fixation: Fixing evolution in global forests. *Nature Plants*, **2015**, 1, 15205	11.5	
2	Nutrient Limitations of Carbon Uptake: From Leaves to Landscapes in a California Rangeland Ecosystem. *Rangeland Ecology and Management*, **2010**, 63, 120-127	2.2	
1	UC experts can lead on carbon dioxide removal. *California Agriculture*, **2019**, 73, 69-72	1.1	