Anthony P Walker

List of Publications by Year
in descending order

64 papers	10,994 citations	117625 34 h-index	110387 64 g-index
81 all docs	81 docs citations	81 times ranked	15971 citing authors

#	Article	IF	Citations
1	Global Carbon Budget 2020. Earth System Science Data, 2020, 12, 3269-3340.	9.9	1,477
2	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	9.9	1,167
3	TRY plant trait database â€" enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	9.5	1,038
4	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	9.9	905
5	Global Carbon Budget 2017. Earth System Science Data, 2018, 10, 405-448.	9.9	801
6	Pervasive shifts in forest dynamics in a changing world. Science, 2020, 368, .	12.6	576
7	Evaluation of 11 terrestrial carbonâ€"nitrogen cycle models against observations from two temperate <scp>F</scp>reeâ€<scp>A</scp>ir <scp>CO</scp>₂<scp> E</scp>nrichment studies. New Phytologist, 2014, 202, 803-822.	7.3	378
8	Simulated resilience of tropical rainforests to CO2-induced climate change. Nature Geoscience, 2013, 6, 268-273.	12.9	358
9	The relationship of leaf photosynthetic traits â€" <i>V</i>_{cmax} and <i>J</i>_{max} â€" to leaf nitrogen, leaf phosphorus, and specific leaf area: a metaâ€analysis and modeling study. Ecology and Evolution, 2014, 4, 3218-3235.	1.9	338
10	Scaling carbon fluxes from eddy covariance sites to globe: synthesis and evaluation of the FLUXCOM approach. Biogeosciences, 2020, 17, 1343-1365.	3.3	323
11	Forest water use and water use efficiency at elevated <scp><scp>CO₂</scp></scp>: a modelâ€data intercomparison at two contrasting temperate forest <scp>FACE</scp> sites. Global Change Biology, 2013, 19, 1759-1779.	9.5	314
12	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. New Phytologist, 2021, 229, 2413-2445.	7.3	286
13	Where does the carbon go? A modelâ€"data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest freeâ€air CO₂ enrichment sites. New Phytologist, 2014, 203, 883-899.	7.3	263
14	The unseen iceberg: plant roots in arctic tundra. New Phytologist, 2015, 205, 34-58.	7.3	260
15	Using ecosystem experiments to improve vegetation models. Nature Climate Change, 2015, 5, 528-534.	18.8	249
16	Root structural and functional dynamics in terrestrial biosphere models â€" evaluation and recommendations. New Phytologist, 2015, 205, 59-78.	7.3	214
17	Modelâ€"data synthesis for the next generation of forest freeâ€air <scp>CO</scp>₂ enrichment (<scp>FACE</scp>) experiments. New Phytologist, 2016, 209, 17-28.	7.3	178
18	Amazon forest response to CO2 fertilization dependent on plant phosphorus acquisition. Nature Geoscience, 2019, 12, 736-741.	12.9	177

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19	The impact of alternative traitâ€scaling hypotheses for the maximum photosynthetic carboxylation rate (<i>V</i>_{cmax}) on global gross primary production. New Phytologist, 2017, 215, 1370-1386.	7.3	126
20	Predicting longâ€term carbon sequestration in response to CO₂ enrichment: How and why do current ecosystem models differ?. Global Biogeochemical Cycles, 2015, 29, 476-495.	4.9	99
21	Comprehensive ecosystem modelâ€data synthesis using multiple data sets at two temperate forest freeâ€air CO₂ enrichment experiments: Model performance at ambient CO₂ concentration. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 937-964.	3.0	95
22	Benchmarking and parameter sensitivity of physiological and vegetation dynamics using the Functionally Assembled Terrestrial Ecosystem Simulator (FATES) at Barro Colorado Island, Panama. Biogeosciences, 2020, 17, 3017-3044.	3.3	82
23	Using models to guide field experiments: <i>a priori</i> predictions for the <scp>CO</scp>₂ response of a nutrientâ€and waterâ€limited native Eucalypt woodland. Global Change Biology, 2016, 22, 2834-2851.	9.5	77
24	Parametric Controls on Vegetation Responses to Biogeochemical Forcing in the CLM5. Journal of Advances in Modeling Earth Systems, 2019, 11, 2879-2895.	3.8	69
25	Decadal biomass increment in early secondary succession woody ecosystems is increased by CO2 enrichment. Nature Communications, 2019, 10, 454.	12.8	68
26	Impact of the 2015/2016 El NiÃ±o on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170304.	4.0	63
27	<scp><i>S</i></scp><i>phagnum</i> physiology in the context of changing climate: emergent influences of genomics, modelling and hostâ€"microbiome interactions on understanding ecosystem function. Plant, Cell and Environment, 2015, 38, 1737-1751.	5.7	60
28	Global variation in the fraction of leaf nitrogen allocated to photosynthesis. Nature Communications, 2021, 12, 4866.	12.8	60
29	Sources of Uncertainty in Regional and Global Terrestrial CO₂ Exchange Estimates. Global Biogeochemical Cycles, 2020, 34, e2019GB006393.	4.9	59
30	Informing models through empirical relationships between foliar phosphorus, nitrogen and photosynthesis across diverse woody species in tropical forests of Panama. New Phytologist, 2017, 215, 1425-1437.	7.3	46
31	Gross primary production responses to warming, elevated <scp>CO</scp>₂, and irrigation: quantifying the drivers of ecosystem physiology in a semiarid grassland. Global Change Biology, 2017, 23, 3092-3106.	9.5	43
32	Challenging terrestrial biosphere models with data from the longâ€term multifactor Prairie Heating and <scp>CO</scp>₂ Enrichment experiment. Global Change Biology, 2017, 23, 3623-3645.	9.5	42
33	A new process sensitivity index to identify important system processes under process model and parametric uncertainty. Water Resources Research, 2017, 53, 3476-3490.	4.2	41
34	Negative extreme events in gross primary productivity and their drivers in China during the past three decades. Agricultural and Forest Meteorology, 2019, 275, 47-58.	4.8	40
35	Advancing global change biology through experimental manipulations: Where have we been and where might we go?. Global Change Biology, 2020, 26, 287-299.	9.5	36
36	Temporal and Spatial Variation in Peatland Carbon Cycling and Implications for Interpreting Responses of an Ecosystemâ€Scale Warming Experiment. Soil Science Society of America Journal, 2017, 81, 1668-1688.	2.2	34

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37	Biological mechanisms may contribute to soil carbon saturation patterns. Global Change Biology, 2021, 27, 2633-2644.	9.5	33
38	Identification of key parameters controlling demographically structured vegetation dynamics in a land surface model: CLM4.5(FATES). Geoscientific Model Development, 2019, 12, 4133-4164.	3.6	32
39	Modelled land use and land cover change emissions â€“ a spatio-temporal comparison of different approaches. Earth System Dynamics, 2021, 12, 635-670.	7.1	29
40	Are Terrestrial Biosphere Models Fit for Simulating the Global Land Carbon Sink?. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	28
41	Bayesian calibration of terrestrial ecosystem models: a study of advanced Markov chain Monte Carlo methods. Biogeosciences, 2017, 14, 4295-4314.	3.3	27
42	The physiological basis for estimating photosynthesis from Chl<i>a</i> fluorescence. New Phytologist, 2022, 234, 1206-1219.	7.3	26
43	Dynamic global vegetation models underestimate net CO₂ flux mean and inter-annual variability in dryland ecosystems. Environmental Research Letters, 2021, 16, 094023.	5.2	23
44	Biophysical drivers of seasonal variability in <i>Sphagnum</i> gross primary production in a northern temperate bog. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1078-1097.	3.0	22
45	Trait covariance: the functional warp of plant diversity?. New Phytologist, 2017, 216, 976-980.	7.3	22
46	Multiâ€hypothesis comparison of Farquhar and Collatz photosynthesis models reveals the unexpected influence of empirical assumptions at leaf and global scales. Global Change Biology, 2021, 27, 804-822.	9.5	22
47	A reporting format for leaf-level gas exchange data and metadata. Ecological Informatics, 2021, 61, 101232.	5.2	22
48	Assessing the representation of the Australian carbon cycle in global vegetation models. Biogeosciences, 2021, 18, 5639-5668.	3.3	21
49	Stimulation of isoprene emissions and electron transport rates as key mechanisms of thermal tolerance in the tropical species <i>Vismia guianensis</i>. Global Change Biology, 2020, 26, 5928-5941.	9.5	20
50	Modelling of planted legume fallows in Western Kenya using WaNuLCAS. (I) Model calibration and validation. Agroforestry Systems, 2007, 70, 197-209.	2.0	18
51	Extending a land-surface model with <i>Sphagnum</i> moss to simulate responses of a northern temperate bog to whole ecosystem warming and elevated CO₂. Biogeosciences, 2021, 18, 467-486.	3.3	17
52	Comment on â€œMycorrhizal association as a primary control of the CO ₂ fertilization effectâ€. Science, 2017, 355, 358-358.	12.6	16
53	Nitrogen and phosphorus cycling in an ombrotrophic peatland: a benchmark for assessing change. Plant and Soil, 2021, 466, 649-674.	3.7	15
54	The multi-assumption architecture and testbed (MAAT v1.0): R code for generating ensembles with dynamic model structure and analysis of epistemic uncertainty from multiple sources. Geoscientific Model Development, 2018, 11, 3159-3185.	3.6	13

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55	Forest stand and canopy development unaltered by 12Âyears of CO2 enrichment*. Tree Physiology, 2022, 42, 428-440.	3.1	12
56	Triose phosphate utilization limitation: an unnecessary complexity in terrestrial biosphere model representation of photosynthesis. New Phytologist, 2021, 230, 17-22.	7.3	11
57	Modelling of planted legume fallows in Western Kenya. (II) Productivity and sustainability of simulated management strategies. Agroforestry Systems, 2008, 74, 143-154.	2.0	7
58	The quasi-equilibrium framework revisited: analyzing long-term CO₂ enrichment responses in plantâ€“soil models. Geoscientific Model Development, 2019, 12, 2069-2089.	3.6	5
59	Building a Virtual Ecosystem Dynamic Model for Root Research. Environmental Modelling and Software, 2017, 89, 97-105.	4.5	3
60	Canopy Position Influences the Degree of Light Suppression of Leaf Respiration in Abundant Tree Genera in the Amazon Forest. Frontiers in Forests and Global Change, 2021, 4, .	2.3	3
61	Guidelines for Publicly Archiving Terrestrial Model Data to Enhance Usability, Intercomparison, and Synthesis. Data Science Journal, 2022, 21, 3.	1.3	3
62	Process Interactions Can Change Process Ranking in a Coupled Complex System Under Process Model and Parametric Uncertainty. Water Resources Research, 2022, 58, .	4.2	3
63	A scalable multiâ€process model of root nitrogen uptake. New Phytologist, 2018, 218, 8-11.	7.3	2
64	Linking soil phosphorus with forest litterfall resistance and resilience to cyclone disturbance: A pantropical metaâ€analysis. Global Change Biology, 2022, 28, 4633-4654.	9.5	2