Stephen A Sitch

List of Publications by Year
in descending order

232 papers	61,039 citations	2802 94 h-index	1190 228 g-index
280 all docs	280 docs citations	280 times ranked	40291 citing authors

#	Article	IF	Citations
1	A Large and Persistent Carbon Sink in the Worldâ€™s Forests. Science, 2011, 333, 988-993.	12.6	5,393
2	Evaluation of ecosystem dynamics, plant geography and terrestrial carbon cycling in the LPJ dynamic global vegetation model. Global Change Biology, 2003, 9, 161-185.	9.5	2,681
3	A dynamic global vegetation model for studies of the coupled atmosphere-biosphere system. Global Biogeochemical Cycles, 2005, 19, .	4.9	1,755
4	Trends in the sources and sinks of carbon dioxide. Nature Geoscience, 2009, 2, 831-836.	12.9	1,746
5	Global response of terrestrial ecosystem structure and function to CO2 and climate change: results from six dynamic global vegetation models. Global Change Biology, 2001, 7, 357-373.	9.5	1,718
6	Greening of the Earth and its drivers. Nature Climate Change, 2016, 6, 791-795.	18.8	1,675
7	Global Carbon Budget 2020. Earth System Science Data, 2020, 12, 3269-3340.	9.9	1,477
8	Ecosystem Service Supply and Vulnerability to Global Change in Europe. Science, 2005, 310, 1333-1337.	12.6	1,355
9	The carbon balance of terrestrial ecosystems in China. Nature, 2009, 458, 1009-1013.	27.8	1,243
10	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	9.9	1,167
11	Global Carbon Budget 2019. Earth System Science Data, 2019, 11, 1783-1838.	9.9	1,159
12	Development and evaluation of an Earth-System model â€“ HadGEM2. Geoscientific Model Development, 2011, 4, 1051-1075.	3.6	1,141
13	An integrated biosphere model of land surface processes, terrestrial carbon balance, and vegetation dynamics. Global Biogeochemical Cycles, 1996, 10, 603-628.	4.9	1,106
14	Evaluation of the terrestrial carbon cycle, future plant geography and climateâ€carbon cycle feedbacks using five Dynamic Global Vegetation Models (DGVMs). Global Change Biology, 2008, 14, 2015-2039.	9.5	1,097
15	Contribution of semi-arid ecosystems to interannual variability of the global carbon cycle. Nature, 2014, 509, 600-603.	27.8	1,054
16	The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. Science, 2015, 348, 895-899.	12.6	1,002
17	The Joint UK Land Environment Simulator (JULES), model description â€“ Part 1: Energy and water fluxes. Geoscientific Model Development, 2011, 4, 677-699.	3.6	993
18	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	9.9	905

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19	Indirect radiative forcing of climate change through ozone effects on the land-carbon sink. Nature, 2007, 448, 791-794.	27.8	886
20	Impact of changes in diffuse radiation on the global land carbon sink. Nature, 2009, 458, 1014-1017.	27.8	858
21	The Joint UK Land Environment Simulator (JULES), model description â€“ Part 2: Carbon fluxes and vegetation dynamics. Geoscientific Model Development, 2011, 4, 701-722.	3.6	804
22	Global Carbon Budget 2017. Earth System Science Data, 2018, 10, 405-448.	9.9	801
23	Terrestrial vegetation and water balanceâ€"hydrological evaluation of a dynamic global vegetation model. Journal of Hydrology, 2004, 286, 249-270.	5.4	783
24	Responses of spring phenology to climate change. New Phytologist, 2004, 162, 295-309.	7.3	761
25	Increased atmospheric vapor pressure deficit reduces global vegetation growth. Science Advances, 2019, 5, eaax1396.	10.3	755
26	Exploring the likelihood and mechanism of a climate-change-induced dieback of the Amazon rainforest. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20610-20615.	7.1	751
27	Carbon balance of the terrestrial biosphere in the Twentieth Century: Analyses of CO2, climate and land use effects with four process-based ecosystem models. Global Biogeochemical Cycles, 2001, 15, 183-206.	4.9	680
28	Climatic Control of the High-Latitude Vegetation Greening Trend and Pinatubo Effect. Science, 2002, 296, 1687-1689.	12.6	672
29	Global Carbon Budget 2021. Earth System Science Data, 2022, 14, 1917-2005.	9.9	663
30	The Effects of Tropospheric Ozone on Net Primary Productivity and Implications for Climate Change. Annual Review of Plant Biology, 2012, 63, 637-661.	18.7	661
31	Evaluation of terrestrial carbon cycle models for their response to climate variability and to <scp><scp>CO₂</scp></scp> trends. Global Change Biology, 2013, 19, 2117-2132.	9.5	617
32	Global Carbon Budget 2015. Earth System Science Data, 2015, 7, 349-396.	9.9	616
33	Recent trends and drivers of regional sources and sinks of carbon dioxide. Biogeosciences, 2015, 12, 653-679.	3.3	587
34	The role of fire disturbance for global vegetation dynamics: coupling fire into a Dynamic Global Vegetation Model. Global Ecology and Biogeography, 2001, 10, 661-677.	5.8	545
35	The global carbon budget 1959â€“2011. Earth System Science Data, 2013, 5, 165-185.	9.9	527
36	Compensatory water effects link yearly global land CO2 sink changes to temperature. Nature, 2017, 541, 516-520.	27.8	480

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37	Global carbon budget 2014. Earth System Science Data, 2015, 7, 47-85.	9.9	463
38	Drought and ecosystem carbon cycling. Agricultural and Forest Meteorology, 2011, 151, 765-773.	4.8	446
39	Spatiotemporal patterns of terrestrial gross primary production: A review. Reviews of Geophysics, 2015, 53, 785-818.	23.0	432
40	Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. Nature Communications, 2014, 5, 5018.	12.8	414
41	The terrestrial biosphere as a net source of greenhouse gases to the atmosphere. Nature, 2016, 531, 225-228.	27.8	402
42	Global warming feedbacks on terrestrial carbon uptake under the Intergovernmental Panel on Climate Change (IPCC) Emission Scenarios. Global Biogeochemical Cycles, 2001, 15, 891-907.	4.9	368
43	A roadmap for improving the representation of photosynthesis in Earth system models. New Phytologist, 2017, 213, 22-42.	7.3	365
44	Simulated resilience of tropical rainforests to CO2-induced climate change. Nature Geoscience, 2013, 6, 268-273.	12.9	358
45	Water-use efficiency and transpiration across European forests during the Anthropocene. Nature Climate Change, 2015, 5, 579-583.	18.8	357
46	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. New Phytologist, 2015, 206, 614-636.	7.3	350
47	A dynamic global vegetation model for use with climate models: concepts and description of simulated vegetation dynamics. Global Change Biology, 2003, 9, 1543-1566.	9.5	335
48	Scaling carbon fluxes from eddy covariance sites to globe: synthesis and evaluation of the FLUXCOM approach. Biogeosciences, 2020, 17, 1343-1365.	3.3	323
49	Recent global decline of CO ₂ fertilization effects on vegetation photosynthesis. Science, 2020, 370, 1295-1300.	12.6	317
50	Global carbon budget 2013. Earth System Science Data, 2014, 6, 235-263.	9.9	311
51	Sensitivity of atmospheric CO2 growth rate to observed changes in terrestrial water storage. Nature, 2018, 560, 628-631.	27.8	295
52	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. New Phytologist, 2021, 229, 2413-2445.	7.3	286
53	Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. Nature Geoscience, 2017, 10, 79-84.	12.9	284
54	Effects of parameter uncertainties on the modeling of terrestrial biosphere dynamics. Global Biogeochemical Cycles, 2005, 19, .	4.9	274

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55	The status and challenge of global fire modelling. Biogeosciences, 2016, 13, 3359-3375.	3.3	274
56	Assessing uncertainties in a secondâ€generation dynamic vegetation model caused by ecological scale limitations. New Phytologist, 2010, 187, 666-681.	7.3	271
57	Comparing and evaluating process-based ecosystem model predictions of carbon and water fluxes in major European forest biomes. Global Change Biology, 2005, 11, 2211-2233.	9.5	246
58	Role of land cover changes for atmospheric CO2 increase and climate change during the last 150 years. Global Change Biology, 2004, 10, 1253-1266.	9.5	244
59	High sensitivity of future global warming to land carbon cycle processes. Environmental Research Letters, 2012, 7, 024002.	5.2	241
60	Widespread seasonal compensation effects of spring warming on northern plant productivity. Nature, 2018, 562, 110-114.	27.8	240
61	FLUXNET and modelling the global carbon cycle. Global Change Biology, 2007, 13, 610-633.	9.5	234
62	Changing Ecology of Tropical Forests: Evidence and Drivers. Annual Review of Ecology, Evolution, and Systematics, 2009, 40, 529-549.	8.3	229
63	Direct and seasonal legacy effects of the 2018 heat wave and drought on European ecosystem productivity. Science Advances, 2020, 6, eaba2724.	10.3	229
64	Dynamic Global Vegetation Modeling: Quantifying Terrestrial Ecosystem Responses to Large-Scale Environmental Change. , 2007, , 175-192.		222
65	Interannual variation of terrestrial carbon cycle: Issues and perspectives. Global Change Biology, 2020, 26, 300-318.	9.5	214
66	Land-use emissions play a critical role in land-based mitigation for Paris climate targets. Nature Communications, 2018, 9, 2938.	12.8	194
67	Multiple mechanisms of Amazonian forest biomass losses in three dynamic global vegetation models under climate change. New Phytologist, 2010, 187, 647-665.	7.3	189
68	Tropical forests and the global carbon cycle: impacts of atmospheric carbon dioxide, climate change and rate of deforestation. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 331-343.	4.0	184
69	Carbon cost of plant nitrogen acquisition: A mechanistic, globally applicable model of plant nitrogen uptake, retranslocation, and fixation. Global Biogeochemical Cycles, 2010, 24, .	4.9	182
70	Global and Regional Trends and Drivers of Fire Under Climate Change. Reviews of Geophysics, 2022, 60, .	23.0	182
71	Modeling the Terrestrial Biosphere. Annual Review of Environment and Resources, 2014, 39, 91-123.	13.4	181
72	Isoprene emissions and climate. Atmospheric Environment, 2009, 43, 6121-6135.	4.1	168

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73	Towards real-time verification of CO2 emissions. Nature Climate Change, 2017, 7, 848-850.	18.8	168
74	Carbon loss from forest degradation exceeds that from deforestation in the Brazilian Amazon. Nature Climate Change, 2021, 11, 442-448.	18.8	166
75	Global trends in carbon sinks and their relationships with CO2 and temperature. Nature Climate Change, 2019, 9, 73-79.	18.8	163
76	A full greenhouse gases budget of Africa: synthesis, uncertainties, and vulnerabilities. Biogeosciences, 2014, 11, 381-407.	3.3	162
77	The Fire Modeling Intercomparison Project (FireMIP), phase 1: experimental and analytical protocols with detailed model descriptions. Geoscientific Model Development, 2017, 10, 1175-1197.	3.6	159
78	Multiple constraints on regional CO2flux variations over land and oceans. Global Biogeochemical Cycles, 2005, 19, .	4.9	154
79	Increased control of vegetation on global terrestrial energy fluxes. Nature Climate Change, 2020, 10, 356-362.	18.8	152
80	Simulating fire regimes in human-dominated ecosystems: Iberian Peninsula case study. Global Change Biology, 2002, 8, 984-998.	9.5	151
81	Changes in the potential distribution of humid tropical forests on a warmer planet. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 137-160.	3.4	151
82	Impacts of future land cover changes on atmospheric CO2and climate. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	148
83	Increasing impact of warm droughts on northern ecosystem productivity over recent decades. Nature Climate Change, 2021, 11, 772-779.	18.8	148
84	Variations in atmospheric CO ₂ growth rates coupled with tropical temperature. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13061-13066.	7.1	144
85	Terrestrial biosphere carbon storage under alternative climate projections. Climatic Change, 2006, 74, 97-122.	3.6	140
86	Towards quantifying uncertainty in predictions of Amazon â€˜diebackâ€™. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1857-1864.	4.0	139
87	Evaluation of terrestrial carbon cycle models through simulations of the seasonal cycle of atmospheric CO2: First results of a model intercomparison study. Global Biogeochemical Cycles, 1998, 12, 1-24.	4.9	132
88	Projected Changes in Terrestrial Carbon Storage in Europe under Climate and Land-use Change, 1990â€“2100. Ecosystems, 2007, 10, 380-401.	3.4	131
89	Evaluation of global terrestrial evapotranspiration using state-of-the-art approaches in remote sensing, machine learning and land surface modeling. Hydrology and Earth System Sciences, 2020, 24, 1485-1509.	4.9	130
90	Simulating past and future dynamics of natural ecosystems in the United States. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	127

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91	THE CARBON BALANCE OF THE TERRESTRIAL BIOSPHERE: ECOSYSTEM MODELS AND ATMOSPHERIC OBSERVATIONS. , 2000, 10, 1553-1573.		126
92	ASSESSING THE CARBON BALANCE OF CIRCUMPOLAR ARCTIC TUNDRA USING REMOTE SENSING AND PROCESS MODELING. , 2007, 17, 213-234.		123
93	Evaluation of a photosynthesis-based biogenic isoprene emission scheme in JULES and simulation of isoprene emissions under present-day climate conditions. Atmospheric Chemistry and Physics, 2011, 11, 4371-4389.	4.9	121
94	THE IMPORTANCE OF AGE-RELATED DECLINE IN FOREST NPP FOR MODELING REGIONAL CARBON BALANCES. , 2006, 16, 1555-1574.		116
95	Constraining temperature variations over the last millennium by comparing simulated and observed atmospheric CO2. Climate Dynamics, 2003, 20, 281-299.	3.8	115
96	Improved representation of plant functional types and physiology in the Joint UK Land Environment Simulator (JULES v4.2) using plant trait information. Geoscientific Model Development, 2016, 9, 2415-2440.	3.6	115
97	A comprehensive set of benchmark tests for a land surface model of simultaneous fluxes of water and carbon at both the global and seasonal scale. Geoscientific Model Development, 2011, 4, 255-269.	3.6	112
98	Lower land-use emissions responsible for increased net land carbon sink during the slow warming period. Nature Geoscience, 2018, 11, 739-743.	12.9	110
99	The carbon budget of terrestrial ecosystems in East Asia over the last two decades. Biogeosciences, 2012, 9, 3571-3586.	3.3	103
100	Reconciling global-model estimates and country reporting of anthropogenic forest CO2 sinks. Nature Climate Change, 2018, 8, 914-920.	18.8	101
101	Implications of improved representations of plant respiration in a changing climate. Nature Communications, 2017, 8, 1602.	12.8	100
102	Large carbon sink potential of secondary forests in the Brazilian Amazon to mitigate climate change. Nature Communications, 2021, 12, 1785.	12.8	99
103	Benchmarking coupled climateâ€carbon models against longâ€term atmospheric CO₂ measurements. Global Biogeochemical Cycles, 2010, 24, .	4.9	97
104	Stomatal optimization based on xylem hydraulics (SOX) improves land surface model simulation of vegetation responses to climate. New Phytologist, 2020, 226, 1622-1637.	7.3	95
105	Analysing Amazonian forest productivity using a new individual and trait-based model (TFS v.1). Geoscientific Model Development, 2014, 7, 1251-1269.	3.6	87
106	Emergent relationships with respect to burned area in global satellite observations and fire-enabled vegetation models. Biogeosciences, 2019, 16, 57-76.	3.3	85
107	Methane flux from northern wetlands and tundra. An ecosystem source modelling approach. Tellus, Series B: Chemical and Physical Meteorology, 1996, 48, 652-661.	1.6	84
108	From biota to chemistry and climate: towards a comprehensive description of trace gas exchange between the biosphere and atmosphere. Biogeosciences, 2010, 7, 121-149.	3.3	84

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109	Comparing concentrationâ€based (AOT40) and stomatal uptake (PODY) metrics for ozone risk assessment to European forests. Global Change Biology, 2016, 22, 1608-1627.	9.5	83
110	Evaluation of Land Surface Models in Reproducing Satellite-Derived LAI over the High-Latitude Northern Hemisphere. Part I: Uncoupled DGVMs. Remote Sensing, 2013, 5, 4819-4838.	4.0	82
111	Evaluation of terrestrial carbon cycle models with atmospheric CO2measurements: Results from transient simulations considering increasing CO2, climate, and land-use effects. Global Biogeochemical Cycles, 2002, 16, 39-1-39-15.	4.9	79
112	The carbon balance of South America: a review of the status, decadal trends and main determinants. Biogeosciences, 2012, 9, 5407-5430.	3.3	78
113	Evaluation of Land Surface Models in Reproducing Satellite Derived Leaf Area Index over the High-Latitude Northern Hemisphere. Part II: Earth System Models. Remote Sensing, 2013, 5, 3637-3661.	4.0	75
114	Carbon budgets for 1.5 and 2â€‰Â°C targets lowered by natural wetland and permafrost feedbacks. Nature Geoscience, 2018, 11, 568-573.	12.9	74
115	Implications of future climate and atmospheric CO₂ content for regional biogeochemistry, biogeography and ecosystem services across East Africa. Global Change Biology, 2010, 16, 617-640.	9.5	71
116	Variations in Amazon forest productivity correlated with foliar nutrients and modelled rates of photosynthetic carbon supply. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 3316-3329.	4.0	71
117	How vegetation impacts affect climate metrics for ozone precursors. Journal of Geophysical Research, 2010, 115, .	3.3	70
118	Current challenges of implementing anthropogenic land-use and land-cover change in models contributing to climate change assessments. Earth System Dynamics, 2017, 8, 369-386.	7.1	69
119	Modelling tropical forest responses to drought and El NiÃ±o with a stomatal optimization model based on xylem hydraulics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170315.	4.0	69
120	Large sensitivity in land carbon storage due to geographical and temporal variation in the thermal response of photosynthetic capacity. New Phytologist, 2018, 218, 1462-1477.	7.3	67
121	Historical (1700â€"2012) global multi-model estimates of the fire emissions from the Fire Modeling Intercomparison Project (FireMIP). Atmospheric Chemistry and Physics, 2019, 19, 12545-12567.	4.9	64
122	Impacts of extreme summers on European ecosystems: a comparative analysis of 2003, 2010 and 2018. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190507.	4.0	64
123	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
124	Quantitative assessment of fire and vegetation properties in simulations with fire-enabled vegetation models from the Fire Model Intercomparison Project. Geoscientific Model Development, 2020, 13, 3299-3318.	3.6	63
125	Increased importance of methane reduction for a 1.5 degree target. Environmental Research Letters, 2018, 13, 054003.	5.2	61
126	A first-order analysis of the potential role of CO2 fertilization to affect the global carbon budget: a comparison of four terrestrial biosphere models. Tellus, Series B: Chemical and Physical Meteorology, 1999, 51, 343-366.	1.6	60

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127	Biomass burning related ozone damage on vegetation over the Amazon forest: a model sensitivity study. Atmospheric Chemistry and Physics, 2015, 15, 2791-2804.	4.9	60
128	The dry season intensity as a key driver of NPP trends. Geophysical Research Letters, 2016, 43, 2632-2639.	4.0	60
129	Sources of Uncertainty in Regional and Global Terrestrial CO₂ Exchange Estimates. Global Biogeochemical Cycles, 2020, 34, e2019GB006393.	4.9	59
130	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. Biogeosciences, 2017, 14, 5053-5067.	3.3	58
131	Comparing national greenhouse gas budgets reported in UNFCCC inventories against atmospheric inversions. Earth System Science Data, 2022, 14, 1639-1675.	9.9	58
132	Methane flux from northern wetlands and tundra. Tellus, Series B: Chemical and Physical Meteorology, 2022, 48, 652.	1.6	57
133	Precipitation and carbon-water coupling jointly control the interannual variability of global land gross primary production. Scientific Reports, 2016, 6, 39748.	3.3	57
134	Forest production efficiency increases with growth temperature. Nature Communications, 2020, 11, 5322.	12.8	57
135	Effects of Changes in Climate on Landscape and Regional Processes, and Feedbacks to the Climate System. Ambio, 2004, 33, 459-468.	5.5	56
136	Large uncertainty in carbon uptake potential of landâ€based climateâ€change mitigation efforts. Global Change Biology, 2018, 24, 3025-3038.	9.5	56
137	Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites. Biogeosciences, 2018, 15, 3421-3437.	3.3	55
138	Global ecosystems and fire: Multiâ€model assessment of fireâ€induced treeâ€cover and carbon storage reduction. Global Change Biology, 2020, 26, 5027-5041.	9.5	55
139	Robust dynamics of Amazon dieback to climate change with perturbed ecosystem model parameters. Global Change Biology, 2010, 16, 2476-2495.	9.5	53
140	Greening drylands despite warming consistent with carbon dioxide fertilization effect. Global Change Biology, 2021, 27, 3336-3349.	9.5	50
141	A first-order analysis of the potential rôle of CO₂ fertilization to affect the global carbon budget: a comparison of four terrestrial biosphere models. Tellus, Series B: Chemical and Physical Meteorology, 2022, 51, 343.	1.6	49
142	Highly contrasting effects of different climate forcing agents on terrestrial ecosystem services. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2026-2037.	3.4	49
143	African tropical rainforest net carbon dioxide fluxes in the twentieth century. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120376.	4.0	49
144	Vegetation distribution and terrestrial carbon cycle in a carbon cycle configuration of JULES4.6 with new plant functional types. Geoscientific Model Development, 2018, 11, 2857-2873.	3.6	49

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145	Slowdown of the greening trend in natural vegetation with further rise in atmospheric CO₂. Biogeosciences, 2021, 18, 4985-5010.	3.3	49
146	Vulnerability of European ecosystems to two compound dry and hot summers in 2018 and 2019. Earth System Dynamics, 2021, 12, 1015-1035.	7.1	49
147	Impact of climate variability on present and Holocene vegetation: A model-based study. Ecological Modelling, 2006, 191, 469-486.	2.5	48
148	Benchmarking the seasonal cycle of CO₂ fluxes simulated by terrestrial ecosystem models. Global Biogeochemical Cycles, 2015, 29, 46-64.	4.9	48
149	On the causes of trends in the seasonal amplitude of atmospheric <scp>CO</scp>₂. Global Change Biology, 2018, 24, 608-616.	9.5	48
150	Biophysics and vegetation cover change: a process-based evaluation framework for confronting land surface models with satellite observations. Earth System Science Data, 2018, 10, 1265-1279.	9.9	46
151	Large but decreasing effect of ozone on the European carbon sink. Biogeosciences, 2018, 15, 4245-4269.	3.3	44
152	State of the science in reconciling topâ€down and bottomâ€up approaches for terrestrial CO₂ budget. Global Change Biology, 2020, 26, 1068-1084.	9.5	43
153	Historical and future global burned area with changing climate and human demography. One Earth, 2021, 4, 517-530.	6.8	43
154	The ecology of peace: preparing Colombia for new political and planetary climates. Frontiers in Ecology and the Environment, 2018, 16, 525-531.	4.0	41
155	Studying the impact of biomass burning aerosol radiative and climate effects on the Amazon rainforest productivity with an Earth system model. Atmospheric Chemistry and Physics, 2019, 19, 1301-1326.	4.9	41
156	IMOGEN: an intermediate complexity model to evaluate terrestrial impacts of a changing climate. Geoscientific Model Development, 2010, 3, 679-687.	3.6	40
157	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
158	Uncertainty analysis of vegetation distribution in the northern high latitudes during the 21st century with a dynamic vegetation model. Ecology and Evolution, 2012, 2, 593-614.	1.9	39
159	Conversion from forests to pastures in the Colombian Amazon leads to contrasting soil carbon dynamics depending on land management practices. Global Change Biology, 2016, 22, 3503-3517.	9.5	39
160	The terrestrial carbon budget of South and Southeast Asia. Environmental Research Letters, 2016, 11, 105006.	5.2	39
161	Response of global land evapotranspiration to climate change, elevated CO2, and land use change. Agricultural and Forest Meteorology, 2021, 311, 108663.	4.8	39
162	How Well Do We Understand the Landâ€Oceanâ€Atmosphere Carbon Cycle?. Reviews of Geophysics, 2022, 60, .	23.0	38

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163	Land-use harmonization datasets for annual global carbon budgets. Earth System Science Data, 2021, 13, 4175-4189.	9.9	37
164	INFERNO: a fire and emissions scheme for the UK Met Office's Unified Model. Geoscientific Model Development, 2016, 9, 2685-2700.	3.6	37
165	Climateâ€Driven Variability and Trends in Plant Productivity Over Recent Decades Based on Three Global Products. Global Biogeochemical Cycles, 2020, 34, e2020GB006613.	4.9	36
166	Vegetation dynamics and plant CO₂ responses as positive feedbacks in a greenhouse world. Geophysical Research Letters, 2009, 36, .	4.0	35
167	Largeâ€Scale Droughts Responsible for Dramatic Reductions of Terrestrial Net Carbon Uptake Over North America in 2011 and 2012. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2053-2071.	3.0	35
168	Modelling basin-wide variations in Amazon forest productivity â€" Part 1: Model calibration, evaluation and upscaling functions for canopy photosynthesis. Biogeosciences, 2009, 6, 1247-1272.	3.3	34
169	Combining the [ABA] and net photosynthesis-based model equations of stomatal conductance. Ecological Modelling, 2015, 300, 81-88.	2.5	34
170	A multi-data assessment of land use and land cover emissions from Brazil during 2000â€"2019. Environmental Research Letters, 2021, 16, 074004.	5.2	33
171	Response of simulated burned area to historical changes in environmental and anthropogenic factors: a comparison of seven fire models. Biogeosciences, 2019, 16, 3883-3910.	3.3	32
172	JULES-CN: a coupled terrestrial carbonâ€"nitrogen scheme (JULES vn5.1). Geoscientific Model Development, 2021, 14, 2161-2186.	3.6	32
173	Amazonian forest degradation must be incorporated into the COP26 agenda. Nature Geoscience, 2021, 14, 634-635.	12.9	32
174	Regional carbon fluxes from land use and land cover change in Asia, 1980â€"2009. Environmental Research Letters, 2016, 11, 074011.	5.2	31
175	Contrasting effects of CO₂ fertilization, land-use change and warming on seasonal amplitude of Northern Hemisphere CO₂ exchange. Atmospheric Chemistry and Physics, 2019, 19, 12361-12375.	4.9	30
176	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
177	Land use change and El NiÃ±o-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. Nature Communications, 2018, 9, 1154.	12.8	28
178	Are Terrestrial Biosphere Models Fit for Simulating the Global Land Carbon Sink?. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	28
179	The Met Office Hadley Centre climate modelling capability: the competing requirements for improved resolution, complexity and dealing with uncertainty. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 2635-2657.	3.4	27
180	The decreasing range between dry- and wet- season precipitation over land and its effect on vegetation primary productivity. PLoS ONE, 2017, 12, e0190304.	2.5	27

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181	Growing season extension affects ozone uptake by European forests. Science of the Total Environment, 2019, 669, 1043-1052.	8.0	27
182	Role of CO₂, climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. Biogeosciences, 2016, 13, 5121-5137.	3.3	26
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