

Stephen A Sitch

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

252
papers

44,626
citations

90
h-index

211
g-index

280
ext. papers

52,958
ext. citations

10.4
avg, IF

6.82
L-index

#	Paper	IF	Citations
252	A large and persistent carbon sink in the world's forests. <i>Science</i> , 2011 , 333, 988-93	33.3	3950
251	Evaluation of ecosystem dynamics, plant geography and terrestrial carbon cycling in the LPJ dynamic global vegetation model. <i>Global Change Biology</i> , 2003 , 9, 161-185	11.4	2307
250	A dynamic global vegetation model for studies of the coupled atmosphere-biosphere system. <i>Global Biogeochemical Cycles</i> , 2005 , 19,	5.9	1481
249	Global response of terrestrial ecosystem structure and function to CO ₂ and climate change: results from six dynamic global vegetation models. <i>Global Change Biology</i> , 2001 , 7, 357-373	11.4	1464
248	Trends in the sources and sinks of carbon dioxide. <i>Nature Geoscience</i> , 2009 , 2, 831-836	18.3	1453
247	Ecosystem service supply and vulnerability to global change in Europe. <i>Science</i> , 2005 , 310, 1333-7	33.3	1181
246	Greening of the Earth and its drivers. <i>Nature Climate Change</i> , 2016 , 6, 791-795	21.4	1036
245	Evaluation of the terrestrial carbon cycle, future plant geography and climate-carbon cycle feedbacks using five Dynamic Global Vegetation Models (DGVMs). <i>Global Change Biology</i> , 2008 , 14, 2015-2039	11.4	955
244	An integrated biosphere model of land surface processes, terrestrial carbon balance, and vegetation dynamics. <i>Global Biogeochemical Cycles</i> , 1996 , 10, 603-628	5.9	919
243	Development and evaluation of an Earth-System model [HadGEM2. <i>Geoscientific Model Development</i> , 2011 , 4, 1051-1075	6.3	902
242	The carbon balance of terrestrial ecosystems in China. <i>Nature</i> , 2009 , 458, 1009-13	50.4	887
241	Global Carbon Budget 2018. <i>Earth System Science Data</i> , 2018 , 10, 2141-2194	10.5	831
240	The Joint UK Land Environment Simulator (JULES), model description [Part 1: Energy and water fluxes. <i>Geoscientific Model Development</i> , 2011 , 4, 677-699	6.3	784
239	Contribution of semi-arid ecosystems to interannual variability of the global carbon cycle. <i>Nature</i> , 2014 , 509, 600-3	50.4	778
238	Global Carbon Budget 2019. <i>Earth System Science Data</i> , 2019 , 11, 1783-1838	10.5	776
237	Indirect radiative forcing of climate change through ozone effects on the land-carbon sink. <i>Nature</i> , 2007 , 448, 791-4	50.4	747
236	Global Carbon Budget 2016. <i>Earth System Science Data</i> , 2016 , 8, 605-649	10.5	730

235	Impact of changes in diffuse radiation on the global land carbon sink. <i>Nature</i> , 2009 , 458, 1014-7	50.4	689
234	Carbon cycle. The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. <i>Science</i> , 2015 , 348, 895-9	33.3	684
233	Terrestrial vegetation and water balanceHydrological evaluation of a dynamic global vegetation model. <i>Journal of Hydrology</i> , 2004 , 286, 249-270	6	675
232	The Joint UK Land Environment Simulator (JULES), model description [Part 2: Carbon fluxes and vegetation dynamics. <i>Geoscientific Model Development</i> , 2011 , 4, 701-722	6.3	631
231	Responses of spring phenology to climate change. <i>New Phytologist</i> , 2004 , 162, 295-309	9.8	630
230	Exploring the likelihood and mechanism of a climate-change-induced dieback of the Amazon rainforest. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 20610-5	11.5	628
229	Global Carbon Budget 2017. <i>Earth System Science Data</i> , 2018 , 10, 405-448	10.5	614
228	Carbon balance of the terrestrial biosphere in the Twentieth Century: Analyses of CO ₂ , climate and land use effects with four process-based ecosystem models. <i>Global Biogeochemical Cycles</i> , 2001 , 15, 183-206	5.9	606
227	Climatic control of the high-latitude vegetation greening trend and Pinatubo effect. <i>Science</i> , 2002 , 296, 1687-9	33.3	578
226	Global Carbon Budget 2020. <i>Earth System Science Data</i> , 2020 , 12, 3269-3340	10.5	533
225	The effects of tropospheric ozone on net primary productivity and implications for climate change. <i>Annual Review of Plant Biology</i> , 2012 , 63, 637-61	30.7	518
224	Global Carbon Budget 2015. <i>Earth System Science Data</i> , 2015 , 7, 349-396	10.5	513
223	Evaluation of terrestrial carbon cycle models for their response to climate variability and to CO ₂ trends. <i>Global Change Biology</i> , 2013 , 19, 2117-32	11.4	481
222	The role of fire disturbance for global vegetation dynamics: coupling fire into a Dynamic Global Vegetation Model. <i>Global Ecology and Biogeography</i> , 2001 , 10, 661-677	6.1	471
221	The global carbon budget 1959-2011. <i>Earth System Science Data</i> , 2013 , 5, 165-185	10.5	436
220	Recent trends and drivers of regional sources and sinks of carbon dioxide. <i>Biogeosciences</i> , 2015 , 12, 653-679	4.79	432
219	Global carbon budget 2014. <i>Earth System Science Data</i> , 2015 , 7, 47-85	10.5	367
218	Drought and ecosystem carbon cycling. <i>Agricultural and Forest Meteorology</i> , 2011 , 151, 765-773	5.8	359

217	Compensatory water effects link yearly global land CO sink changes to temperature. <i>Nature</i> , 2017 , 541, 516-520	50.4	341
216	Global warming feedbacks on terrestrial carbon uptake under the Intergovernmental Panel on Climate Change (IPCC) Emission Scenarios. <i>Global Biogeochemical Cycles</i> , 2001 , 15, 891-907	5.9	306
215	Spatiotemporal patterns of terrestrial gross primary production: A review. <i>Reviews of Geophysics</i> , 2015 , 53, 785-818	23.1	297
214	Simulated resilience of tropical rainforests to CO ₂ -induced climate change. <i>Nature Geoscience</i> , 2013 , 6, 268-273	18.3	293
213	A dynamic global vegetation model for use with climate models: concepts and description of simulated vegetation dynamics. <i>Global Change Biology</i> , 2003 , 9, 1543-1566	11.4	291
212	The terrestrial biosphere as a net source of greenhouse gases to the atmosphere. <i>Nature</i> , 2016 , 531, 225-8	50.4	278
211	Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. <i>Nature Communications</i> , 2014 , 5, 5018	17.4	274
210	Water-use efficiency and transpiration across European forests during the Anthropocene. <i>Nature Climate Change</i> , 2015 , 5, 579-583	21.4	271
209	Increased atmospheric vapor pressure deficit reduces global vegetation growth. <i>Science Advances</i> , 2019 , 5, eaax1396	14.3	270
208	Global carbon budget 2013. <i>Earth System Science Data</i> , 2014 , 6, 235-263	10.5	264
207	A roadmap for improving the representation of photosynthesis in Earth system models. <i>New Phytologist</i> , 2017 , 213, 22-42	9.8	245
206	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. <i>New Phytologist</i> , 2015 , 206, 614-36	9.8	244
205	Comparing and evaluating process-based ecosystem model predictions of carbon and water fluxes in major European forest biomes.. <i>Global Change Biology</i> , 2005 , 11, 2211-2233	11.4	231
204	Effects of parameter uncertainties on the modeling of terrestrial biosphere dynamics. <i>Global Biogeochemical Cycles</i> , 2005 , 19,	5.9	229
203	Assessing uncertainties in a second-generation dynamic vegetation model caused by ecological scale limitations. <i>New Phytologist</i> , 2010 , 187, 666-81	9.8	225
202	FLUXNET and modelling the global carbon cycle. <i>Global Change Biology</i> , 2007 , 13, 610-633	11.4	201
201	Changing Ecology of Tropical Forests: Evidence and Drivers. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2009 , 40, 529-549	13.5	196
200	Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. <i>Nature Geoscience</i> , 2017 , 10, 79-84	18.3	195

199	Role of land cover changes for atmospheric CO ₂ increase and climate change during the last 150 years. <i>Global Change Biology</i> , 2004 , 10, 1253-1266	11.4	193
198	The status and challenge of global fire modelling. <i>Biogeosciences</i> , 2016 , 13, 3359-3375	4.6	193
197	High sensitivity of future global warming to land carbon cycle processes. <i>Environmental Research Letters</i> , 2012 , 7, 024002	6.2	185
196	Dynamic Global Vegetation Modeling: Quantifying Terrestrial Ecosystem Responses to Large-Scale Environmental Change 2007 , 175-192		174
195	Sensitivity of atmospheric CO growth rate to observed changes in terrestrial water storage. <i>Nature</i> , 2018 , 560, 628-631	50.4	172
194	Multiple mechanisms of Amazonian forest biomass losses in three dynamic global vegetation models under climate change. <i>New Phytologist</i> , 2010 , 187, 647-65	9.8	162
193	Tropical forests and the global carbon cycle: impacts of atmospheric carbon dioxide, climate change and rate of deforestation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2004 , 359, 331-43	5.8	162
192	Carbon cost of plant nitrogen acquisition: A mechanistic, globally applicable model of plant nitrogen uptake, retranslocation, and fixation. <i>Global Biogeochemical Cycles</i> , 2010 , 24, n/a-n/a	5.9	148
191	Multiple constraints on regional CO ₂ flux variations over land and oceans. <i>Global Biogeochemical Cycles</i> , 2005 , 19,	5.9	142
190	Modeling the Terrestrial Biosphere. <i>Annual Review of Environment and Resources</i> , 2014 , 39, 91-123	17.2	137
189	Simulating fire regimes in human-dominated ecosystems: Iberian Peninsula case study. <i>Global Change Biology</i> , 2002 , 8, 984-998	11.4	137
188	Impacts of future land cover changes on atmospheric CO ₂ and climate. <i>Global Biogeochemical Cycles</i> , 2005 , 19, n/a-n/a	5.9	135
187	Scaling carbon fluxes from eddy covariance sites to globe: synthesis and evaluation of the FLUXCOM approach. <i>Biogeosciences</i> , 2020 , 17, 1343-1365	4.6	134
186	A full greenhouse gases budget of Africa: synthesis, uncertainties, and vulnerabilities. <i>Biogeosciences</i> , 2014 , 11, 381-407	4.6	134
185	Widespread seasonal compensation effects of spring warming on northern plant productivity. <i>Nature</i> , 2018 , 562, 110-114	50.4	134
184	Isoprene emissions and climate. <i>Atmospheric Environment</i> , 2009 , 43, 6121-6135	5.3	132
183	Towards quantifying uncertainty in predictions of Amazon 'dieback'. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2008 , 363, 1857-64	5.8	130
182	Changes in the potential distribution of humid tropical forests on a warmer planet. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 137-60	3	127

181	Development and evaluation of an Earth-system model [HadGEM2 2011 ,		124
180	The global carbon budget 1959-2011 2012 ,		122
179	Terrestrial biosphere carbon storage under alternative climate projections. <i>Climatic Change</i> , 2006 , 74, 97-122	4.5	122
178	Global carbon budget 2014		121
177	Variations in atmospheric CO ₂ growth rates coupled with tropical temperature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 13061-6	11.5	119
176	Evaluation of terrestrial carbon cycle models through simulations of the seasonal cycle of atmospheric CO ₂ : First results of a model intercomparison study. <i>Global Biogeochemical Cycles</i> , 1998 , 12, 1-24	5.9	114
175	Assessing the carbon balance of circumpolar Arctic tundra using remote sensing and process modeling 2007 , 17, 213-34		111
174	Simulating past and future dynamics of natural ecosystems in the United States. <i>Global Biogeochemical Cycles</i> , 2003 , 17, n/a-n/a	5.9	109
173	Recent global decline of CO ₂ fertilization effects on vegetation photosynthesis. <i>Science</i> , 2020 , 370, 1295-1300	3.9	107
172	The Fire Modeling Intercomparison Project (FireMIP), phase 1: experimental and analytical protocols with detailed model descriptions. <i>Geoscientific Model Development</i> , 2017 , 10, 1175-1197	6.3	106
171	The Carbon Balance of the Terrestrial Biosphere: Ecosystem Models and Atmospheric Observations 2000 , 10, 1553-1573		106
170	Projected Changes in Terrestrial Carbon Storage in Europe under Climate and Land-use Change, 1990-2100. <i>Ecosystems</i> , 2007 , 10, 380-401	3.9	105
169	Constraining temperature variations over the last millennium by comparing simulated and observed atmospheric CO ₂ . <i>Climate Dynamics</i> , 2003 , 20, 281-299	4.2	103
168	Land-use emissions play a critical role in land-based mitigation for Paris climate targets. <i>Nature Communications</i> , 2018 , 9, 2938	17.4	99
167	The importance of age-related decline in forest NPP for modeling regional carbon balances 2006 , 16, 1555-74		99
166	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO ₂ . <i>New Phytologist</i> , 2021 , 229, 2413-2445	9.8	94
165	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. <i>Geoscientific Model Development</i> , 2011 , 4, 255-269	6.3	91
164	Evaluation of a photosynthesis-based biogenic isoprene emission scheme in JULES and simulation of isoprene emissions under present-day climate conditions. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 4371-4389	6.8	91

163	Benchmarking coupled climate-carbon models against long-term atmospheric CO ₂ measurements. <i>Global Biogeochemical Cycles</i> , 2010 , 24, n/a-n/a	5.9	88
162	Direct and seasonal legacy effects of the 2018 heat wave and drought on European ecosystem productivity. <i>Science Advances</i> , 2020 , 6, eaba2724	14.3	85
161	The carbon budget of terrestrial ecosystems in East Asia over the last two decades. <i>Biogeosciences</i> , 2012 , 9, 3571-3586	4.6	83
160	Interannual variation of terrestrial carbon cycle: Issues and perspectives. <i>Global Change Biology</i> , 2020 , 26, 300-318	11.4	83
159	Improved representation of plant functional types and physiology in the Joint UK Land Environment Simulator (JULES v4.2) using plant trait information. <i>Geoscientific Model Development</i> , 2016 , 9, 2415-2440	6.3	79
158	Global trends in carbon sinks and their relationships with CO ₂ and temperature. <i>Nature Climate Change</i> , 2019 , 9, 73-79	21.4	77
157	Global carbon budget 2013 2013 ,		75
156	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1996 , 48, 652-661	3.3	75
155	From biota to chemistry and climate: towards a comprehensive description of trace gas exchange between the biosphere and atmosphere. <i>Biogeosciences</i> , 2010 , 7, 121-149	4.6	74
154	Analysing Amazonian forest productivity using a new individual and trait-based model (TFS v.1). <i>Geoscientific Model Development</i> , 2014 , 7, 1251-1269	6.3	72
153	The carbon balance of South America: a review of the status, decadal trends and main determinants. <i>Biogeosciences</i> , 2012 , 9, 5407-5430	4.6	70
152	Evaluation of Land Surface Models in Reproducing Satellite-Derived LAI over the High-Latitude Northern Hemisphere. Part I: Uncoupled DGVMs. <i>Remote Sensing</i> , 2013 , 5, 4819-4838	5	69
151	Implications of improved representations of plant respiration in a changing climate. <i>Nature Communications</i> , 2017 , 8, 1602	17.4	67
150	Implications of future climate and atmospheric CO ₂ content for regional biogeochemistry, biogeography and ecosystem services across East Africa. <i>Global Change Biology</i> , 2010 , 16, 617-640	11.4	65
149	How vegetation impacts affect climate metrics for ozone precursors. <i>Journal of Geophysical Research</i> , 2010 , 115,		64
148	Comparing concentration-based (AOT40) and stomatal uptake (PODY) metrics for ozone risk assessment to European forests. <i>Global Change Biology</i> , 2016 , 22, 1608-27	11.4	64
147	Lower land-use emissions responsible for increased net land carbon sink during the slow warming period. <i>Nature Geoscience</i> , 2018 , 11, 739-743	18.3	62
146	Evaluation of terrestrial carbon cycle models with atmospheric CO ₂ measurements: Results from transient simulations considering increasing CO ₂ , climate, and land-use effects. <i>Global Biogeochemical Cycles</i> , 2002 , 16, 39-1-39-15	5.9	62

145	Variations in Amazon forest productivity correlated with foliar nutrients and modelled rates of photosynthetic carbon supply. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011 , 366, 3316-29	5.8	61
144	Carbon budgets for 1.5 and 2 °C targets lowered by natural wetland and permafrost feedbacks. <i>Nature Geoscience</i> , 2018 , 11, 568-573	18.3	60
143	Global Carbon Budget 2017		60
142	Evaluation of Land Surface Models in Reproducing Satellite Derived Leaf Area Index over the High-Latitude Northern Hemisphere. Part II: Earth System Models. <i>Remote Sensing</i> , 2013 , 5, 3637-3661	5	58
141	Carbon loss from forest degradation exceeds that from deforestation in the Brazilian Amazon. <i>Nature Climate Change</i> , 2021 , 11, 442-448	21.4	58
140	Reconciling global-model estimates and country reporting of anthropogenic forest CO ₂ sinks. <i>Nature Climate Change</i> , 2018 , 8, 914-920	21.4	57
139	Increased control of vegetation on global terrestrial energy fluxes. <i>Nature Climate Change</i> , 2020 , 10, 356-362	21.4	55
138	Emergent relationships with respect to burned area in global satellite observations and fire-enabled vegetation models. <i>Biogeosciences</i> , 2019 , 16, 57-76	4.6	54
137	Current challenges of implementing anthropogenic land-use and land-cover change in models contributing to climate change assessments. <i>Earth System Dynamics</i> , 2017 , 8, 369-386	4.8	53
136	Evaluation of global terrestrial evapotranspiration using state-of-the-art approaches in remote sensing, machine learning and land surface modeling. <i>Hydrology and Earth System Sciences</i> , 2020 , 24, 1485-1509	5.5	52
135	A first-order analysis of the potential role of CO ₂ fertilization to affect the global carbon budget: a comparison of four terrestrial biosphere models. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1999 , 51, 343-366	3.3	51
134	Methane flux from northern wetlands and tundra. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1996 , 48, 652-661	3.3	49
133	Modelling tropical forest responses to drought and El Niño with a stomatal optimization model based on xylem hydraulics. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018 , 373,	5.8	49
132	Stomatal optimization based on xylem hydraulics (SOX) improves land surface model simulation of vegetation responses to climate. <i>New Phytologist</i> , 2020 , 226, 1622-1637	9.8	48
131	Global Carbon Budget 2021. <i>Earth System Science Data</i> , 2022 , 14, 1917-2005	10.5	47
130	Impact of climate variability on present and Holocene vegetation: A model-based study. <i>Ecological Modelling</i> , 2006 , 191, 469-486	3	44
129	Trends and drivers of regional sources and sinks of carbon dioxide over the past two decades		44
128	Precipitation and carbon-water coupling jointly control the interannual variability of global land gross primary production. <i>Scientific Reports</i> , 2016 , 6, 39748	4.9	44

127	Biomass burning related ozone damage on vegetation over the Amazon forest: a model sensitivity study. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 2791-2804	6.8	43
126	Benchmarking the seasonal cycle of CO ₂ fluxes simulated by terrestrial ecosystem models. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 46-64	5.9	42
125	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. <i>Biogeosciences</i> , 2017 , 14, 5053-5067	4.6	42
124	Effects of changes in climate on landscape and regional processes, and feedbacks to the climate system. <i>Ambio</i> , 2004 , 33, 459-68	6.5	42
123	The dry season intensity as a key driver of NPP trends. <i>Geophysical Research Letters</i> , 2016 , 43, 2632-2639	4.9	42
122	Impact of the 2015/2016 El Niño on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018 , 373,	5.8	41
121	Highly contrasting effects of different climate forcing agents on terrestrial ecosystem services. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 2026-37	3	40
120	African tropical rainforest net carbon dioxide fluxes in the twentieth century. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20120376	5.8	39
119	A first-order analysis of the potential role of CO ₂ fertilization to affect the global carbon budget: a comparison of four terrestrial biosphere models. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1999 , 51, 343-366	3.3	39
118	Robust dynamics of Amazon dieback to climate change with perturbed ecosystem model parameters. <i>Global Change Biology</i> , 2010 , 16, 2476	11.4	37
117	Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites. <i>Biogeosciences</i> , 2018 , 15, 3421-3437	4.6	36
116	On the causes of trends in the seasonal amplitude of atmospheric CO ₂ . <i>Global Change Biology</i> , 2018 , 24, 608-616	11.4	35
115	The Joint UK Land Environment Simulator (JULES), Model description [Part 1: Energy and water fluxes] 2011 ,		35
114	IMOGEN: an intermediate complexity model to evaluate terrestrial impacts of a changing climate. <i>Geoscientific Model Development</i> , 2010 , 3, 679-687	6.3	34
113	Increased importance of methane reduction for a 1.5 degree target. <i>Environmental Research Letters</i> , 2018 , 13, 054003	6.2	34
112	Large uncertainty in carbon uptake potential of land-based climate-change mitigation efforts. <i>Global Change Biology</i> , 2018 , 24, 3025-3038	11.4	33
111	Uncertainty analysis of vegetation distribution in the northern high latitudes during the 21st century with a dynamic vegetation model. <i>Ecology and Evolution</i> , 2012 , 2, 593-614	2.8	33
110	Vegetation dynamics and plant CO ₂ responses as positive feedbacks in a greenhouse world. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	33

109	Large sensitivity in land carbon storage due to geographical and temporal variation in the thermal response of photosynthetic capacity. <i>New Phytologist</i> , 2018 , 218, 1462-1477	9.8	32
108	The Joint UK Land Environment Simulator (JULES), Model description [Part 2: Carbon fluxes and vegetation 2011 ,		32
107	Vegetation distribution and terrestrial carbon cycle in a carbon cycle configuration of JULES4.6 with new plant functional types. <i>Geoscientific Model Development</i> , 2018 , 11, 2857-2873	6.3	31
106	Modelling basin-wide variations in Amazon forest productivity [Part 1: Model calibration, evaluation and upscaling functions for canopy photosynthesis. <i>Biogeosciences</i> , 2009 , 6, 1247-1272	4.6	31
105	Quantitative assessment of fire and vegetation properties in simulations with fire-enabled vegetation models from the Fire Model Intercomparison Project. <i>Geoscientific Model Development</i> , 2020 , 13, 3299-3318	6.3	31
104	Biophysics and vegetation cover change: a process-based evaluation framework for confronting land surface models with satellite observations. <i>Earth System Science Data</i> , 2018 , 10, 1265-1279	10.5	30
103	Conversion from forests to pastures in the Colombian Amazon leads to contrasting soil carbon dynamics depending on land management practices. <i>Global Change Biology</i> , 2016 , 22, 3503-17	11.4	30
102	Studying the impact of biomass burning aerosol radiative and climate effects on the Amazon rainforest productivity with an Earth system model. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 1301-1326	6.8	29
101	Historical (1700-2012) global multi-model estimates of the fire emissions from the Fire Modeling Intercomparison Project (FireMIP). <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 12545-12567	6.8	29
100	Large but decreasing effect of ozone on the European carbon sink. <i>Biogeosciences</i> , 2018 , 15, 4245-4269	4.6	28
99	The ecology of peace: preparing Colombia for new political and planetary climates. <i>Frontiers in Ecology and the Environment</i> , 2018 , 16, 525-531	5.5	28
98	Combining the [ABA] and net photosynthesis-based model equations of stomatal conductance. <i>Ecological Modelling</i> , 2015 , 300, 81-88	3	26
97	The terrestrial carbon budget of South and Southeast Asia. <i>Environmental Research Letters</i> , 2016 , 11, 105006	6.2	26
96	INFERNO: a fire and emissions scheme for the UK Met Office's Unified Model. <i>Geoscientific Model Development</i> , 2016 , 9, 2685-2700	6.3	25
95	Large carbon sink potential of secondary forests in the Brazilian Amazon to mitigate climate change. <i>Nature Communications</i> , 2021 , 12, 1785	17.4	25
94	The Met Office Hadley Centre climate modelling capability: the competing requirements for improved resolution, complexity and dealing with uncertainty. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007 , 365, 2635-57	3	23
93	Sources of Uncertainty in Regional and Global Terrestrial CO ₂ Exchange Estimates. <i>Global Biogeochemical Cycles</i> , 2020 , 34, e2019GB006393	5.9	23
92	Impacts of extreme summers on European ecosystems: a comparative analysis of 2003, 2010 and 2018. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020 , 375, 20190507	5.8	23

91	Regional carbon fluxes from land use and land cover change in Asia, 1980–2009. <i>Environmental Research Letters</i> , 2016 , 11, 074011	6.2	21
90	Forest production efficiency increases with growth temperature. <i>Nature Communications</i> , 2020 , 11, 5322	7.4	21
89	The carbon cycle in Mexico: past, present and future of C stocks and fluxes. <i>Biogeosciences</i> , 2016 , 13, 223-238	4.6	21
88	Multicriteria evaluation of discharge simulation in Dynamic Global Vegetation Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 7488-7505	4.4	20
87	Role of CO ₂ , climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. <i>Biogeosciences</i> , 2016 , 13, 5121-5137	4.6	19
86	State of the science in reconciling top-down and bottom-up approaches for terrestrial CO budget. <i>Global Change Biology</i> , 2020 , 26, 1068-1084	11.4	19
85	Large-Scale Droughts Responsible for Dramatic Reductions of Terrestrial Net Carbon Uptake Over North America in 2011 and 2012. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018 , 123, 2053-2071	3.7	18
84	Negative extreme events in gross primary productivity and their drivers in China during the past three decades. <i>Agricultural and Forest Meteorology</i> , 2019 , 275, 47-58	5.8	17
83	Global ecosystems and fire: Multi-model assessment of fire-induced tree-cover and carbon storage reduction. <i>Global Change Biology</i> , 2020 , 26, 5027-5041	11.4	17
82	Present-day and future contribution of climate and fires to vegetation composition in the boreal forest of China. <i>Ecosphere</i> , 2017 , 8, e01917	3.1	17
81	A biogeochemistry-based dynamic vegetation model and its application along a moisture gradient in the continental United States. <i>Journal of Vegetation Science</i> , 2002 , 13, 369-382	3.1	17
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24	Biomass burning related ozone damage on vegetation over the Amazon forest		2
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