Iain Colin Prentice

List of Articles by Year
in descending order

Source: //exaly.com/author-pdf/3016124/publications.pdf

Version: 2025-02-01

301 peer-reviewed articles	66,876 peer-reviewed citations	1170 107 peer-reviewed h-index	84631 6.35 score
341 documents	82701 doc citations	995 120 h-index	80800 citing authors

#	Article	IF	Citations
1	Empirical evidence and theoretical understanding of ecosystem carbon and nitrogen cycle interactions. New Phytologist, 2025, 245, 49-68.	5.3	38
2	Fire-Image-DenseNet (FIDN) for predicting wildfire burnt area using remote sensing data. Computers and Geosciences, 2025, 195, 105783.	3.0	10
3	A unifying principle for global greenness patterns and trends. Communications Earth & Environment, 2025, 6, .	4.9	16
4	Hyperspectral sensing of aboveground biomass and species diversity in a long-running grassland experiment. Ecological Informatics, 2025, 86, 103028.	4.9	11
5	Investigation of factors that affect post-fire recovery of photosynthetic activity at global scale. Ecological Indicators, 2025, 171, 113206.	5.4	9
6	The Response of Carbon Uptake to Soil Moisture Stress: Adaptation to Climatic Aridity. Global Change Biology, 2025, 31, .	7.4	18
7	A General Model for the Seasonal to Decadal Dynamics of Leaf Area. Global Change Biology, 2025, 31, .	7.4	10
8	Thermal acclimation of stem respiration implies a weaker carbon-climate feedback. Science, 2025, 388, 984-988.	26.1	11
9	Holocene vegetation dynamics of the Eastern Mediterranean region: Old controversies addressed by a new analysis. Journal of Biogeography, 2024, 51, 294-310.	1.9	5
10	Reduced global plant respiration due to the acclimation of leaf dark respiration coupled with photosynthesis. New Phytologist, 2024, 241, 578-591.	5.3	25
11	Incorporating photosynthetic acclimation improves stomatal optimisation models. Plant, Cell and Environment, 2024, 47, 3478-3493.	4.8	6
12	Contrasting carbon cycle along tropical forest aridity gradients in West Africa and Amazonia. Nature Communications, 2024, 15, .	10.8	25
13	INFERNO-peat v1.0.0: a representation of northern high-latitude peat fires in the JULES-INFERNO global fire model. Geoscientific Model Development, 2024, 17, 3063-3079.	2.3	8
14	Simple process-led algorithms for simulating habitats (SPLASH v.2.0): robust calculations of water and energy fluxes. Geoscientific Model Development, 2024, 17, 4229-4309.	2.3	7
15	Global critical soil moisture thresholds of plant water stress. Nature Communications, 2024, 15, .	10.8	176
16	The global drivers of wildfire. Frontiers in Environmental Science, 2024, 12, .	2.3	32
17	Global patterns of plant functional traits and their relationships to climate. Communications Biology, 2024, 7, .	3.1	68
18	Evidence for widespread thermal acclimation of canopy photosynthesis. Nature Plants, 2024, 10, 1919-1927.	8.0	17

#	Article	IF	Citations
19	Optimality principles explaining divergent responses of alpine vegetation to environmental change. Global Change Biology, 2023, 29, 126-142.	7.4	66
20	Coordination of photosynthetic traits across soil and climate gradients. Global Change Biology, 2023, 29, 856-873.	7.4	37
21	Environmental controls on the light use efficiency of terrestrial gross primary production. Global Change Biology, 2023, 29, 1037-1053.	7.4	51
22	Leaf economics fundamentals explained by optimality principles. Science Advances, 2023, 9, .	8.1	75
23	Optimality-based modelling of wheat sowing dates globally. Agricultural Systems, 2023, 206, 103608.	3.8	25
24	Holocene climates of the Iberian Peninsula: pollen-based reconstructions of changes in the west–east gradient of temperature and moisture. Climate of the Past, 2023, 19, 803-834.	1.8	19
25	Global leaf-trait mapping based on optimality theory. Global Ecology and Biogeography, 2023, 32, 1152-1162.	3.6	18
26	Community Abundance of Resprouting in Woody Plants Reflects Fire Return Time, Intensity, and Type. Forests, 2023, 14, 878.	1.8	9
27	Towards a universal evapotranspiration model based on optimality principles. Agricultural and Forest Meteorology, 2023, 336, 109478.	4.5	21
28	Evidence and attribution of the enhanced land carbon sink. Nature Reviews Earth & Environment, 2023, 4, 518-534.	42.0	227
29	The response of wildfire regimes to Last Glacial Maximum carbon dioxide and climate. Biogeosciences, 2023, 20, 3981-3995.	2.2	10
30	Pollen-based reconstructions of Holocene climate trends in the eastern Mediterranean region. Climate of the Past, 2023, 19, 2093-2108.	1.8	16
31	A constraint on historic growth in global photosynthesis due to rising CO2. Nature Climate Change, 2023, 13, 1376-1381.	12.0	114
32	Leaf carbon and nitrogen stoichiometric variation along environmental gradients. Biogeosciences, 2023, 20, 4511-4525.	2.2	9
33	Methane flux from northern wetlands and tundra. Tellus, Series B: Chemical and Physical Meteorology, 2022, 48, 652.	0.3	18
34	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.	0.3	11
35	Reconciling apparent inconsistencies in estimates of terrestrial CO₂ sources and sinks. Tellus, Series B: Chemical and Physical Meteorology, 2022, 55, 345.	0.3	2
36	Vegetation responses to climate extremes recorded by remotely sensed atmospheric formaldehyde. Global Change Biology, 2022, 28, 1809-1822.	7.4	39

#	Article	IF	Citations
37	Global decadal variability of plant carbon isotope discrimination and its link to gross primary production. Global Change Biology, 2022, 28, 524-541.	7.4	26
38	Ecosystem Photosynthesis in Land-Surface Models: A First-Principles Approach Incorporating Acclimation. Journal of Advances in Modeling Earth Systems, 2022, 14, .	2.6	47
39	Atmospheric dryness reduces photosynthesis along a large range of soil water deficits. Nature Communications, 2022, 13, .	10.8	340
40	Leaf morphological traits as adaptations to multiple climate gradients. Journal of Ecology, 2022, 110, 1344-1355.	3.0	85
41	CO 2 fertilization of terrestrial photosynthesis inferred from site to global scales. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	5.2	162
42	Accounting for atmospheric carbon dioxide variations in pollen-based reconstruction of past hydroclimates. Global and Planetary Change, 2022, 211, 103790.	3.2	25
43	Global environmental controls on wildfire burnt area, size, and intensity. Environmental Research Letters, 2022, 17, 065004.	2.8	54
44	Data-driven surrogate model with latent data assimilation: Application to wildfire forecasting. Journal of Computational Physics, 2022, 464, 111302.	2.9	102
45	Reconstructing burnt area during the Holocene: an Iberian case study. Climate of the Past, 2022, 18, 1189-1201.	1.8	4
46	A new method based on surface-sample pollen data for reconstructing palaeovegetation patterns. Journal of Biogeography, 2022, 49, 1381-1396.	1.9	10
47	Leaf nitrogen from the perspective of optimal plant function. Journal of Ecology, 2022, 110, 2585-2602.	3.0	44
48	Parameter Flexible Wildfire Prediction Using Machine Learning Techniques: Forward and Inverse Modelling. Remote Sensing, 2022, 14, 3228.	2.7	55
49	Past rapid warmings as a constraint on greenhouse-gas climate feedbacks. Communications Earth & Environment, 2022, 3, .	4.9	4
50	Global datasets of leaf photosynthetic capacity for ecological and earth system research. Earth System Science Data, 2022, 14, 4077-4093.	6.9	67
51	Towards a unified theory of plant photosynthesis and hydraulics. Nature Plants, 2022, 8, 1304-1316.	8.0	162
52	Critical soil moisture thresholds of plant water stress in terrestrial ecosystems. Science Advances, 2022, 8, .	8.1	180
53	The China plant trait database version 2. Scientific Data, 2022, 9, .	3.8	38
54	Predictability of leaf traits with climate and elevation: a case study in Gongga Mountain, China. Tree Physiology, 2021, 41, 1336-1352.	2.3	38

#	Article	IF	Citations
55	Global climate and nutrient controls of photosynthetic capacity. Communications Biology, 2021, 4, .	3.1	46
56	The importance of antecedent vegetation and drought conditions as global drivers of burnt area. Biogeosciences, 2021, 18, 3861-3879.	2.2	39
57	Dry corridors opened by fire and low CO2 in Amazonian rainforest during the Last Glacial Maximum. Nature Geoscience, 2021, 14, 578-585.	10.1	30
58	Eco-evolutionary optimality as a means to improve vegetation and land-surface models. New Phytologist, 2021, 231, 2125-2141.	5.3	177
59	Coordination of plant hydraulic and photosynthetic traits: confronting optimality theory with field measurements. New Phytologist, 2021, 232, 1286-1296.	5.3	67
60	Global variation in the fraction of leaf nitrogen allocated to photosynthesis. Nature Communications, 2021, 12, .	10.8	151
61	Land-surface evapotranspiration derived from a first-principles primary production model. Environmental Research Letters, 2021, 16, 104047.	2.8	21
62	AusTraits, a curated plant trait database for the Australian flora. Scientific Data, 2021, 8, .	3.8	185
63	Optimality-based modelling of climate impacts on global potential wheat yield. Environmental Research Letters, 2021, 16, 114013.	2.8	10
64	Understanding and modelling wildfire regimes: an ecological perspective. Environmental Research Letters, 2021, 16, 125008.	2.8	89
65	RETRACTED ARTICLE: A constraint on historic growth in global photosynthesis due to increasing CO2. Nature, 2021, 600, 253-258.	30.7	67
66	Plant respiration: Controlled by photosynthesis or biomass?. Global Change Biology, 2020, 26, 1739-1753.	7.4	130
67	Historical changes in the stomatal limitation of photosynthesis: empirical support for an optimality principle. New Phytologist, 2020, 225, 2484-2497.	5.3	59
68	TRY plant trait database – enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	7.4	1,989
69	Impacts of soil water stress on the acclimated stomatal limitation of photosynthesis: Insights from stable carbon isotope data. Global Change Biology, 2020, 26, 7158-7172.	7.4	51
70	Forest production efficiency increases with growth temperature. Nature Communications, 2020, 11, .	10.8	100
71	An improved statistical approach for reconstructing past climates from biotic assemblages. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, .	1.4	24
72	N_2O changes from the Last Glacial Maximum to the preindustrial – Part 2: terrestrial N_2O emissions and carbon–nitrogen cycle interactions. Biogeosciences, 2020, 17, 3511-3543.	2.2	16

#	Article	IF	Citations
73	The climatic space of European pollen taxa. Ecology, 2020, 101, .	2.4	7
74	When and where soil is important to modify the carbon and water economy of leaves. New Phytologist, 2020, 228, 121-135.	5.3	51
75	P-model v1.0: an optimality-based light use efficiency model for simulating ecosystem gross primary production. Geoscientific Model Development, 2020, 13, 1545-1581.	2.3	187
76	A new multivariable benchmark for Last Glacial Maximum climate simulations. Climate of the Past, 2020, 16, 699-712.	1.8	33
77	Components of leaf-trait variation along environmental gradients. New Phytologist, 2020, 228, 82-94.	5.3	209
78	Acclimation of leaf respiration consistent with optimal photosynthetic capacity. Global Change Biology, 2020, 26, 2573-2583.	7.4	109
79	Extending a first-principles primary production model to predict wheat yields. Agricultural and Forest Meteorology, 2020, 287, 107932.	4.5	28
80	A theory of plant function helps to explain leaf-trait and productivity responses to elevation. New Phytologist, 2020, 226, 1274-1284.	5.3	47
81	A Method for Generating Coherent Spatially Explicit Maps of Seasonal Paleoclimates From Site-Based Reconstructions. Journal of Advances in Modeling Earth Systems, 2020, 12, .	2.6	4
82	Recent trends in gross primary production and their drivers: analysis and modelling at flux-site and global scales. Environmental Research Letters, 2020, 15, 124050.	2.8	58
83	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.	2.3	124
84	Nitrogen and phosphorus constrain the CO2 fertilization of global plant biomass. Nature Climate Change, 2019, 9, 684-689.	12.0	466
85	Bridging Drought Experiment and Modeling: Representing the Differential Sensitivities of Leaf Gas Exchange to Drought. Frontiers in Plant Science, 2019, 9, .	3.0	32
86	Drought impacts on terrestrial primary production underestimated by satellite monitoring. Nature Geoscience, 2019, 12, 264-270.	10.1	405
87	Is NPP proportional to GPP? Waring's hypothesis 20 years on. Tree Physiology, 2019, 39, 1473-1483.	2.3	156
88	Observed and modelled historical trends in the water-use efficiency of plants and ecosystems. Global Change Biology, 2019, 25, 2242-2257.	7.4	132
89	Quantifying leaf-trait covariation and its controls across climates and biomes. New Phytologist, 2019, 221, 155-168.	5.3	112
90	Global photosynthetic capacity is optimized to the environment. Ecology Letters, 2019, 22, 506-517.	4.1	252

#	Article	IF	Citations
91	The validity of optimal leaf traits modelled on environmental conditions. New Phytologist, 2019, 221, 1409-1423.	5.3	46
92	Quantifying soil moisture impacts on light use efficiency across biomes. New Phytologist, 2018, 218, 1430-1449.	5.3	320
93	A continental-scale assessment of variability in leaf traits: Within species, across sites and between seasons. Functional Ecology, 2018, 32, 1492-1506.	2.9	68
94	Ecosystem responses to elevated CO2 governed by plant–soil interactions and the cost of nitrogen acquisition. New Phytologist, 2018, 217, 507-522.	5.3	194
95	The China Plant Trait Database: toward a comprehensive regional compilation of functional traits for land plants. Ecology, 2018, 99, 500-500.	2.4	94
96	Functional trait variation related to gap dynamics in tropical moist forests: A vegetation modelling perspective. Perspectives in Plant Ecology, Evolution and Systematics, 2018, 35, 52-64.	1.5	14
97	Thermal acclimation of leaf photosynthetic traits in an evergreen woodland, consistent with the coordination hypothesis. Biogeosciences, 2018, 15, 3461-3474.	2.2	45
98	Latitudinal limits to the predicted increase of the peatland carbon sink with warming. Nature Climate Change, 2018, 8, 907-913.	12.0	293
99	Frost and leaf-size gradients in forests: global patterns and experimental evidence. New Phytologist, 2018, 219, 565-573.	5.3	45
100	The biomass burning contribution to climate–carbon-cycle feedback. Earth System Dynamics, 2018, 9, 663-677.	3.0	46
101	Changes in biomass allocation buffer low CO2 effects on tree growth during the last glaciation. Scientific Reports, 2017, 7, .	2.7	1
102	Biophysical homoeostasis of leaf temperature: A neglected process for vegetation and land-surface modelling. Global Ecology and Biogeography, 2017, 26, 998-1007.	3.6	68
103	Photosynthetic responses to altitude: an explanation based on optimality principles. New Phytologist, 2017, 213, 976-982.	5.3	112
104	Modelling the demand for new nitrogen fixation by terrestrial ecosystems. Biogeosciences, 2017, 14, 2003-2017.	2.2	26
105	The Fire Modeling Intercomparison Project (FireMIP), phase 1: experimental and analytical protocols with detailed model descriptions. Geoscientific Model Development, 2017, 10, 1175-1197.	2.3	231
106	Leaf nitrogen from first principles: field evidence for adaptive variation with climate. Biogeosciences, 2017, 14, 481-495.	2.2	92
107	Simple process-led algorithms for simulating habitats (SPLASH v.1.0): robust indices of radiation, evapotranspiration and plant-available moisture. Geoscientific Model Development, 2017, 10, 689-708.	2.3	83
108	Carbon–nitrogen interactions in idealized simulations with JSBACH (version 3.10). Geoscientific Model Development, 2017, 10, 2009-2030.	2.3	55

#	Article	IF	Citations
109	Towards a universal model for carbon dioxide uptake by plants. Nature Plants, 2017, 3, 734-741.	8.0	370
110	Role of zooplankton dynamics for Southern Ocean phytoplankton biomass and global biogeochemical cycles. Biogeosciences, 2016, 13, 4111-4133.	2.2	109
111	Climate-driven expansion of blanket bogs in Britain during the Holocene. Climate of the Past, 2016, 12, 129-136.	1.8	27
112	The status and challenge of global fire modelling. Biogeosciences, 2016, 13, 3359-3375.	2.2	370
113	Terrestrial nitrogen cycling in Earth system models revisited. New Phytologist, 2016, 210, 1165-1168.	5.3	47
114	Vegetation plays an important role in mediating future water resources. Environmental Research Letters, 2016, 11, 094022.	2.8	33
115	Satellite based estimates underestimate the effect of CO2 fertilization on net primary productivity. Nature Climate Change, 2016, 6, 892-893.	12.0	97
116	What have we learnt from palaeoclimate simulations?. Journal of Quaternary Science, 2016, 31, 363-385.	1.3	62
117	A model analysis of climate and CO 2 controls on tree growth and carbon allocation in a semi-arid woodland. Ecological Modelling, 2016, 342, 175-185.	2.3	7
118	Recent pause in the growth rate of atmospheric CO2 due to enhanced terrestrial carbon uptake. Nature Communications, 2016, 7, .	10.8	431
119	Increased light-use efficiency in northern terrestrial ecosystems indicated by CO2 and greening observations. Geophysical Research Letters, 2016, 43, .	2.9	55
120	A test of the 'one-point method' for estimating maximum carboxylation capacity from field-measured, light-saturated photosynthesis. New Phytologist, 2016, 210, 1130-1144.	5.3	206
121	Long-term water stress leads to acclimation of drought sensitivity of photosynthetic capacity in xeric but not riparianEucalyptusspecies. Annals of Botany, 2016, 117, 133-144.	2.1	76
122	Terrestrial biosphere changes over the last 120 kyr. Climate of the Past, 2016, 12, 51-73.	1.8	52
123	Morphological and moisture availability controls of the leaf area-to-sapwood area ratio: analysis of measurements on Australian trees. Ecology and Evolution, 2015, 5, 1263-1270.	1.4	39
124	Reliable, robust and realistic: the three R's of next-generation land-surface modelling. Atmospheric Chemistry and Physics, 2015, 15, 5987-6005.	3.0	201
125	Effects of fire and CO2 on biogeography and primary production in glacial and modern climates. New Phytologist, 2015, 208, 987-994.	5.3	34
126	Do land surface models need to include differential plant species responses to drought? Examining model predictions across a mesic-xeric gradient in Europe. Biogeosciences, 2015, 12, 7503-7518.	2.2	89

#	Article	IF	Citations
127	Responses of leaf traits to climatic gradients: adaptive variation versus compositional shifts. Biogeosciences, 2015, 12, 5339-5352.	2.2	59
128	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. New Phytologist, 2015, 206, 614-636.	5.3	426
129	Optimal stomatal behaviour around the world. Nature Climate Change, 2015, 5, 459-464.	12.0	546
130	Global effects of soil and climate on leaf photosynthetic traits and rates. Global Ecology and Biogeography, 2015, 24, 706-717.	3.6	359
131	The global spectrum of plant form and function. Nature, 2015, 529, 167-171.	30.7	3,210
132	Reduced streamflow in water-stressed climates consistent with CO2 effects on vegetation. Nature Climate Change, 2015, 6, 75-78.	12.0	311
133	Climate versus carbon dioxide controls on biomass burning: a model analysis of the glacial–interglacial contrast. Biogeosciences, 2014, 11, 6017-6027.	2.2	13
134	Simulation of tree-ring widths with a model for primary production, carbon allocation, and growth. Biogeosciences, 2014, 11, 6711-6724.	2.2	44
135	Causal relationships versus emergent patterns in the global controls of fire frequency. Biogeosciences, 2014, 11, 5087-5101.	2.2	142
136	Biophsyical constraints on gross primary production by the terrestrial biosphere. Biogeosciences, 2014, 11, 5987-6001.	2.2	67
137	Short-term water stress impacts on stomatal, mesophyll and biochemical limitations to photosynthesis differ consistently among tree species from contrasting climates. Tree Physiology, 2014, 34, 1035-1046.	2.3	150
138	Improved simulation of fire–vegetation interactions in the Land surface Processes and eXchanges dynamic global vegetation model (LPX-Mv1). Geoscientific Model Development, 2014, 7, 2411-2433.	2.3	34
139	Where does the carbon go? A model–data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest free-air CO2 enrichment sites. New Phytologist, 2014, 203, 883-899.	5.3	311
140	Evaluation of 11 terrestrial carbon–nitrogen cycle models against observations from two temperate Free-Air CO2 Enrichment studies. New Phytologist, 2014, 202, 803-822.	5.3	442
141	Increased Ratio of Electron Transport to Net Assimilation Rate Supports Elevated Isoprenoid Emission Rate in Eucalypts under Drought . Plant Physiology, 2014, 166, 1059-1072.	4.0	29
142	A model of plant isoprene emission based on available reducing power captures responses to atmospheric CO2. New Phytologist, 2014, 203, 125-139.	5.3	101
143	Balancing the costs of carbon gain and water transport: testing a new theoretical framework for plant functional ecology. Ecology Letters, 2014, 17, 82-91.	4.1	485
144	Comprehensive ecosystem model-data synthesis using multiple data sets at two temperate forest free-air CO2 enrichment experiments: Model performance at ambient CO2 concentration. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 937-964.	2.0	109

#	Article	IF	Citations
145	Isoprene emissions track the seasonal cycle of canopy temperature, not primary production: evidence from remote sensing. Biogeosciences, 2014, 11, 3437-3451.	2.2	9
146	Volatile isoprenoid emissions from plastid to planet. New Phytologist, 2013, 197, 49-57.	5.3	168
147	The optimal stomatal response to atmospheric CO2 concentration: Alternative solutions, alternative interpretations. Agricultural and Forest Meteorology, 2013, 182-183, 200-203.	4.5	71
148	Multiple greenhouse-gas feedbacks from the land biosphere under future climate change scenarios. Nature Climate Change, 2013, 3, 666-672.	12.0	255
149	How should we model plant responses to drought? An analysis of stomatal and non-stomatal responses to water stress. Agricultural and Forest Meteorology, 2013, 182-183, 204-214.	4.5	336
150	Forest water use and water use efficiency at elevated CO2: a model-data intercomparison at two contrasting temperate forest FACE sites. Global Change Biology, 2013, 19, 1759-1779.	7.4	364
151	Data-based modelling and environmental sensitivity of vegetation in China. Biogeosciences, 2013, 10, 5817-5830.	2.2	26
152	Precipitation scaling with temperature in warm and cold climates: An analysis of CMIP5 simulations. Geophysical Research Letters, 2013, 40, 4018-4024.	2.9	62
153	Stable isotope and modelling evidence for CO 2 as a driver of glacial–interglacial vegetation shifts in southern Africa. Biogeosciences, 2013, 10, 2001-2010.	2.2	36
154	A comprehensive benchmarking system for evaluating global vegetation models. Biogeosciences, 2013, 10, 3313-3340.	2.2	139
155	Evaluation of biospheric components in Earth system models using modern and palaeo-observations: the state-of-the-art. Biogeosciences, 2013, 10, 8305-8328.	2.2	13
156	A worldwide analysis of trends in water-balance evapotranspiration. Hydrology and Earth System Sciences, 2013, 17, 4177-4187.	3.4	72
157	Climate-related changes in peatland carbon accumulation during the last millennium. Biogeosciences, 2013, 10, 929-944.	2.2	323
158	Climate model benchmarking with glacial and mid-Holocene climates. Climate Dynamics, 2013, 43, 671-688.	2.0	195
159	Relationships between Human Population Density and Burned Area at Continental and Global Scales. PLoS ONE, 2013, 8, e81188.	1.5	97
160	Modelling terrestrial nitrous oxide emissions and implications for climate feedback. New Phytologist, 2012, 196, 472-488.	5.3	119
161	A global model for the uptake of atmospheric hydrogen by soils. Global Biogeochemical Cycles, 2012, 26, .	4.1	16
162	Predictability of biomass burning in response to climate changes. Global Biogeochemical Cycles, 2012, 26, .	4.1	243

#	Article	IF	Citations
163	Primary production in forests and grasslands of China: contrasting environmental responses of light- and water-use efficiency models. Biogeosciences, 2012, 9, 4689-4705.	2.2	13
164	A framework for benchmarking land models. Biogeosciences, 2012, 9, 3857-3874.	2.2	291
165	Blanket peat biome endangered by climate change. Nature Climate Change, 2012, 3, 152-155.	12.0	126
166	Modeling fire and the terrestrial carbon balance. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	4.1	162
167	Beyond Predictions: Biodiversity Conservation in a Changing Climate. Science, 2011, 332, 53-58.	26.1	1,782
168	Improving assessment and modelling of climate change impacts on global terrestrial biodiversity. Trends in Ecology and Evolution, 2011, 26, 249-259.	4.1	297
169	Evaluation of global continental hydrology as simulated by the Land-surface Processes and eXchanges Dynamic Global Vegetation Model. Hydrology and Earth System Sciences, 2011, 15, 91-105.	3.4	46
170	Constraining global methane emissions and uptake by ecosystems. Biogeosciences, 2011, 8, 1643-1665.	2.2	226
171	Reconciling the optimal and empirical approaches to modelling stomatal conductance. Global Change Biology, 2011, 17, 2134-2144.	7.4	1,172
172	TRY – a global database of plant traits. Global Change Biology, 2011, 17, 2905-2935.	7.4	2,333
173	Evidence of a universal scaling relationship for leaf CO2 drawdown along an aridity gradient. New Phytologist, 2011, 190, 169-180.	5.3	138
174	Global vegetation and terrestrial carbon cycle changes after the last ice age. New Phytologist, 2011, 189, 988-998.	5.3	272
175	Herbivores enable plant survival under nutrient limited conditions in a model grazing system. Ecological Modelling, 2011, 222, 381-397.	2.3	7
176	Large inert carbon pool in the terrestrial biosphere during the Last Glacial Maximum. Nature Geoscience, 2011, 5, 74-79.	10.1	170
177	Ecophysiological and bioclimatic foundations for a global plant functional classification. Journal of Vegetation Science, 2010, 21, 300-317.	1.6	218
178	Corrigendum to "The influence of vegetation, fire spread and fire behaviour on biomass burning and trace gas emissions: results from a process-based model" published in Biogeosciences, 7, 1991-2011, doi:10.5194/bg-7-1991-2010, 2010. Biogeosciences, 2010, 7, 2191-2191.	2.2	6
179	The influence of vegetation, fire spread and fire behaviour on biomass burning and trace gas emissions: results from a process-based model. Biogeosciences, 2010, 7, 1991-2011.	2.2	409
180	From biota to chemistry and climate: towards a comprehensive description of trace gas exchange between the biosphere and atmosphere. Biogeosciences, 2010, 7, 121-149.	2.2	88

#	Article	IF	Citations
181	Implementation and evaluation of a new methane model within a dynamic global vegetation model: LPJ-WHyMe v1.3.1. Geoscientific Model Development, 2010, 3, 565-584.	2.3	291
182	Palaeovegetation in China during the late Quaternary: Biome reconstructions based on a global scheme of plant functional types. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 289, 44-61.	1.9	201
183	Pollen-based continental climate reconstructions at 6 and 21 ka: a global synthesis. Climate Dynamics, 2010, 37, 775-802.	2.0	612
184	Bioclimatic envelope model of climate change impacts on blanket peatland distribution in Great Britain. Climate Research, 2010, 45, 151-162.	1.2	119
185	Assessing the vulnerability of blanket peat to climate change using an ensemble of statistical bioclimatic envelope models. Climate Research, 2010, 45, 131-150.	1.2	68
186	Climate change and the British Uplands: evidence for decision-making. Climate Research, 2010, 45, 3-12.	1.2	16
187	Ecosystem effects of CO 2 concentration: evidence from past climates. Climate of the Past, 2009, 5, 297-307.	1.8	112
188	Trends in the sources and sinks of carbon dioxide. Nature Geoscience, 2009, 2, 831-836.	10.1	1,912
189	Integrating peatlands and permafrost into a dynamic global vegetation model: 1. Evaluation and sensitivity of physical land surface processes. Global Biogeochemical Cycles, 2009, 23, .	4.1	200
190	Integrating peatlands and permafrost into a dynamic global vegetation model: 2. Evaluation and sensitivity of vegetation and carbon cycle processes. Global Biogeochemical Cycles, 2009, 23, .	4.1	168
191	Fire in the Earth System. Science, 2009, 324, 481-484.	26.1	3,067
192	Lessons Learned from IPCC AR4: Scientific Developments Needed to Understand, Predict, and Respond to Climate Change. Bulletin of the American Meteorological Society, 2009, 90, 497-514.	0.1	51
193	CO2 fertilization in temperate FACE experiments not representative of boreal and tropical forests. Global Change Biology, 2008, 14, 1531-1542.	7.4	298
194	Terrestrial nitrogen cycle simulation with a dynamic global vegetation model. Global Change Biology, 2008, 14, 1745-1764.	7.4	167
195	Evaluation of the terrestrial carbon cycle, future plant geography and climate-carbon cycle feedbacks using five Dynamic Global Vegetation Models (DGVMs). Global Change Biology, 2008, 14, 2015-2039.	7.4	1,194
196	Climate and human influences on global biomass burning over the past two millennia. Nature Geoscience, 2008, 1, 697-702.	10.1	763
197	Mid- to Late Holocene climate change: an overview. Quaternary Science Reviews, 2008, 27, 1791-1828.	2.1	1,618
198	What do recent advances in quantifying climate and carbon cycle uncertainties mean for climate policy?. Environmental Research Letters, 2008, 3, 044002.	2.8	14

#	Article	IF	Citations
199	Process-based estimates of terrestrial ecosystem isoprene emissions: incorporating the effects of a direct CO 2 -isoprene interaction. Atmospheric Chemistry and Physics, 2007, 7, 31-53.	3.0	291
200	Projected Changes in Terrestrial Carbon Storage in Europe under Climate and Land-use Change, 1990–2100. Ecosystems, 2007, 10, 380-401.	1.7	154
201	Changes in fire regimes since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data. Climate Dynamics, 2007, 30, 887-907.	2.0	667
202	Implementing plant hydraulic architecture within the LPJ Dynamic Global Vegetation Model. Global Ecology and Biogeography, 2006, 15, 567-577.	3.6	154
203	Terrestrial biosphere carbon storage under alternative climate projections. Climatic Change, 2006, 74, 97-122.	2.5	148
204	Impact of climate variability on present and Holocene vegetation: A model-based study. Ecological Modelling, 2006, 191, 469-486.	2.3	53
205	A climate-change risk analysis for world ecosystems. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13116-13120.	5.2	640
206	Simulated and Observed Preindustrial to Modern Vegetation and Climate Changes*. Journal of Climate, 2005, 18, 3650-3671.	0.5	45
207	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.	7.4	262
208	Ecosystem dynamics based on plankton functional types for global ocean biogeochemistry models. Global Change Biology, 2005, .	7.4	712
209	Long-term sensitivity of soil carbon turnover to warming. Nature, 2005, 433, 298-301.	30.7	1,149
210	Climate change threats to plant diversity in Europe. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8245-8250.	5.2	2,245
211	A dynamic global vegetation model for studies of the coupled atmosphere-biosphere system. Global Biogeochemical Cycles, 2005, 19, .	4.1	2,051
212	Modeling glacial-interglacial changes in global fire regimes and trace gas emissions. Global Biogeochemical Cycles, 2005, 19, .	4.1	40
213	Global Consequences of Land Use. Science, 2005, 309, 570-574.	26.1	11,503
214	A Theory of Gradient Analysis. Advances in Ecological Research, 2004, , 235-282.	4.4	293
215	Pollen-based reconstructions of biome distributions for Australia, Southeast Asia and the Pacific (SEAPAC region) at 0, 6000 and 18,000 14C yr BP. Journal of Biogeography, 2004, 31, 1381-1444.	1.9	154
216	Sensitivity of a dynamic global vegetation model to climate and atmospheric CO2. Global Change Biology, 2004, 10, 1223-1239.	7.4	70

#	Article	IF	Citations
217	Transient simulations of Holocene atmospheric carbon dioxide and terrestrial carbon since the Last Glacial Maximum. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.1	208
218	Mid-Holocene climates of the Americas: a dynamical response to changed seasonality. Climate Dynamics, 2003, 20, 663-688.	2.0	185
219	Evaluation of ecosystem dynamics, plant geography and terrestrial carbon cycling in the LPJ dynamic global vegetation model. Global Change Biology, 2003, 9, 161-185.	7.4	2,908
220	Climate change and Arctic ecosystems: 1. Vegetation changes north of 55°N between the last glacial maximum, mid-Holocene, and present. Journal of Geophysical Research, 2003, 108, .	3.5	290
221	Climate change and Arctic ecosystems: 2. Modeling, paleodata-model comparisons, and future projections. Journal of Geophysical Research, 2003, 108, .	3.5	494
222	The stable carbon isotope composition of the terrestrial biosphere: Modeling at scales from the leaf to the globe. Global Biogeochemical Cycles, 2002, 16, 8-1-8-11.	4.1	84
223	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.	4.1	82
224	Maximum impacts of future reforestation or deforestation on atmospheric CO2. Global Change Biology, 2002, 8, 1047-1052.	7.4	200
225	Growth enhancement due to global atmospheric change as predicted by terrestrial ecosystem models: consistent with US forest inventory data. Global Change Biology, 2002, 8, 299-303.	7.4	41
226	A biogeochemistry-based dynamic vegetation model and its application along a moisture gradient in the continental United States. Journal of Vegetation Science, 2002, 13, 369-382.	1.6	21
227	Global warming feedbacks on terrestrial carbon uptake under the Intergovernmental Panel on Climate Change (IPCC) Emission Scenarios. Global Biogeochemical Cycles, 2001, 15, 891-907.	4.1	404
228	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.	4.1	714
229	An introduction to the European Terrestrial Ecosystem Modelling Activity. Global Ecology and Biogeography, 2001, 10, 581-593.	3.6	46
230	Representation of vegetation dynamics in the modelling of terrestrial ecosystems: comparing two contrasting approaches within European climate space. Global Ecology and Biogeography, 2001, 10, 621-637.	3.6	465
231	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.	7.4	1,827
232	Primary productivity of planet earth: biological determinants and physical constraints in terrestrial and aquatic habitats. Global Change Biology, 2001, 7, 849-882.	7.4	326
233	Recent patterns and mechanisms of carbon exchange by terrestrial ecosystems. Nature, 2001, 414, 169-172.	30.7	1,239
234	Modelling the vegetation of China using the process-based equilibrium terrestrial biosphere model BIOME3. Global Ecology and Biogeography, 2000, 9, 463-479.	3.6	88

#	Article	IF	Citations
235	Mid-Holocene and glacial-maximum vegetation geography of the northern continents and Africa. Journal of Biogeography, 2000, 27, 507-519.	1.9	609
236	Palaeovegetation of China: a pollen data-based synthesis for the mid-Holocene and last glacial maximum. Journal of Biogeography, 2000, 27, 635-664.	1.9	415
237	Title is missing!. Climatic Change, 1999, 41, 37-52.	2.5	44
238	Tropical climates at the Last Glacial Maximum: a new synthesis of terrestrial palaeoclimate data. I. Vegetation, lake-levels and geochemistry. Climate Dynamics, 1999, 15, 823-856.	2.0	315
239	Tropical paleoclimates at the Last Glacial Maximum: comparison of Paleoclimate Modeling Intercomparison Project (PMIP) simulations and paleodata. Climate Dynamics, 1999, 15, 857-874.	2.0	235
240	Monsoon changes for 6000 years ago: Results of 18 simulations from the Paleoclimate Modeling Intercomparison Project (PMIP). Geophysical Research Letters, 1999, 26, 859-862.	2.9	393
241	Pollen-based reconstruction of vegetation patterns of China in mid-Holocene. Science in China Series D: Earth Sciences, 1998, 41, 130-136.	0.3	10
242	Coupling dynamic models of climate and vegetation. Global Change Biology, 1998, 4, 561-579.	7.4	253
243	BIOME 6000: reconstructing global mid-Holocene vegetation patterns from palaeoecological records. Journal of Biogeography, 1998, 25, 997-1005.	1.9	300
244	Present-day and mid-Holocene biomes reconstructed from pollen and plant macrofossil data from the former Soviet Union and Mongolia. Journal of Biogeography, 1998, 25, 1029-1053.	1.9	275
245	Pollen-based biome reconstructions for China at 0 and 6000 years. Journal of Biogeography, 1998, 25, 1055-1069.	1.9	178
246	Biome reconstruction from pollen and plant macrofossil data for Africa and the Arabian peninsula at 0 and 6000 years. Journal of Biogeography, 1998, 25, 1007-1027.	1.9	315
247	The climate and biomes of Europe at 6000yr BP. Quaternary Science Reviews, 1998, 17, 659-668.	2.1	142
248	Land surface feedbacks and palaeomonsoons in northern Africa. Geophysical Research Letters, 1998, 25, 3615-3618.	2.9	148
249	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.	4.1	142
250	Edaphic Controls on the Boreonemoral Forest Mosaic. Oikos, 1997, 78, 291.	1.6	7
251	Quantifying the role of biosphere-atmosphere feedbacks in climate change: coupled model simulations for 6000 years BP and comparison with palaeodata for northern Eurasia and northern Africa. Climate Dynamics, 1997, 13, 865-881.	2.0	239
252	A coupled carbon and water flux model to predict vegetation structure. Journal of Vegetation Science, 1996, 7, 651-666.	1.6	115

#	Article	IF	Citations
253	BIOME3: An equilibrium terrestrial biosphere model based on ecophysiological constraints, resource availability, and competition among plant functional types. Global Biogeochemical Cycles, 1996, 10, 693-709.	4.1	899
254	An integrated biosphere model of land surface processes, terrestrial carbon balance, and vegetation dynamics. Global Biogeochemical Cycles, 1996, 10, 603-628.	4.1	1,196
255	Possible role of atmosphere-biosphere interactions in triggering the Last Glaciation. Geophysical Research Letters, 1996, 23, 3191-3194.	2.9	189
256	A General Model for the Light-Use Efficiency of Primary Production. Functional Ecology, 1996, 10, 551.	2.9	410
257	The climate of Europe 6000 years ago. Climate Dynamics, 1996, 13, 1-9.	2.0	274
258	Climate change, tree species distributions and forest dynamics: A case study in the mixed conifer/northern hardwoods zone of northern Europe. Climatic Change, 1996, 34, .	2.5	192
259	Boreal forest futures: Modelling the controls on tree species range limits and transient responses to climate change. Water, Air, and Soil Pollution, 1995, 82, 415-428.	2.4	80
260	Exploration and calibration of pollen/vegetation relationships: a PC program for the extended R-value models. Review of Palaeobotany and Palynology, 1995, 84, 365-374.	1.2	29
261	MIOMBO — a vegetation dynamics model for the miombo woodlands on Zambezian Africa. Forest Ecology and Management, 1994, 69, 87-95.	2.6	29
262	Climatic controls on Holocene lake-level changes in Europe. Climate Dynamics, 1993, 8, 189-200.	2.0	115
263	The interaction of climate and land use in future terrestrial carbon storage and release. Water, Air, and Soil Pollution, 1993, 70, 595-614.	2.4	47
264	A simulation model for the transient effects of climate change on forest landscapes. Ecological Modelling, 1993, 65, 51-70.	2.3	405
265	Modelling Global Vegetation Patterns and Terrestrial Carbon Storage at the Last Glacial Maximum. Global Ecology and Biogeography Letters, 1993, 3, 67.	0.5	169
266	Vegetation and Climate Change in Eastern North America Since the Last Glacial Maximum. Ecology, 1993, 74, 998-998.	2.4	6
267	Special Paper: A Global Biome Model Based on Plant Physiology and Dominance, Soil Properties and Climate. Journal of Biogeography, 1992, 19, 117.	1.9	1,963
268	Influence of insolation and glaciation on atmospheric circulation in the North Atlantic sector: Implications of general circulation model experiments for the Late Quaternary climatology of Europe. Quaternary Science Reviews, 1992, 11, 283-299.	2.1	93
269	Mediterranean vegetation, lake levels and palaeoclimate at the Last Glacial Maximum. Nature, 1992, 360, 658-660.	30.7	183
270	Silvics of north European trees: Compilation, comparisons and implications for forest succession modelling. Forest Ecology and Management, 1991, 42, 79-93.	2.6	102

#	Article	IF	Citations
271	The Possible Dynamic Response of Northern Forests to Global Warming. Global Ecology and Biogeography Letters, 1991, 1, 129.	0.5	88
272	Vegetation and Climate Change in Eastern North America Since the Last Glacial Maximum. Ecology, 1991, 72, 2038-2056.	2.4	408
273	Pattern and Process and the Dynamics of Forest Structure: A Simulation Approach. Journal of Ecology, 1990, 78, 340.	3.0	129
274	Orbital variations, climate and paleoecology. Trends in Ecology and Evolution, 1989, 4, 195-199.	4.1	77
275	Climatic Control of the Distribution and Abundance of Beech (Fagus L.) in Europe and North America. Journal of Biogeography, 1989, 16, 551.	1.9	307
276	Palaeoecology and plant population dynamics. Trends in Ecology and Evolution, 1988, 3, 343-345.	4.1	23
277	Simulation of regional soil moisture deficits on a European scale. Norsk Geografisk Tidsskrift, 1988, 42, 149-151.	0.8	55
278	Simulation of Heathland Vegetation Dynamics. Journal of Ecology, 1987, 75, 203.	3.0	21
279	Description and simulation of tree-layer composition and size distributions in a primaeval Picea-Pinus forest. Plant Ecology, 1987, 69, 147-156.	0.2	77
280	Climatic Response Surfaces from Pollen Data for Some Eastern North American Taxa. Journal of Biogeography, 1986, 13, 35.	1.9	302
281	Vegetation responses to past climatic variation. Plant Ecology, 1986, 67, 131-141.	0.2	165
282	A spatial simulation model for vegetation dynamics. Plant Ecology, 1986, 65, 163-173.	0.2	60
283	Sampling Methods and Taxon Analysis in Vegetation Science.. Journal of Ecology, 1985, 73, 717.	3.0	0
284	Maximum Likelihood Linear Calibration of Pollen Spectra in Terms of Forest Composition. Biometrics, 1983, 39, 1051.	1.1	173
285	Pollen Mapping of Regional Vegetation Patterns in South and Central Sweden. Journal of Biogeography, 1983, 10, 441.	1.9	19
286	QUANTITATIVE BIRCH (BETULA L.) POLLEN SEPARATION BY ANALYSIS OF SIZE FREQUENCY DATA. New Phytologist, 1981, 89, 145-157.	5.3	39
287	THE HILL VEGETATION OF NORTH HOY, ORKNEY. New Phytologist, 1975, 75, 313-367.	5.3	16
288	Global mapping of potential natural vegetation: an assessment of machine learning algorithms for estimating land potential. PeerJ, 0, 6, e5457.	0.0	157

#	Article	IF	Citations
289	Present and future interannual variability in wildfire occurrence: a large ensemble application to the United States. Frontiers in Forests and Global Change, 0, 8, .	2.3	3
290	Plant nutrient acquisition under elevated CO2 and implications for the land carbon sink. Nature Climate Change, 0, 15, 935-946.	12.0	12
291	Global Assessment of Environmental and Plant-Trait Influences on Root: Shoot Biomass Ratios. Global Change Biology, 0, 31, .	7.4	15
292	Influence of global climate modes on wildfire occurrence in the contiguous United States under recent and future climates. Climate Dynamics, 0, 64, .	2.0	1
293	Minimal impact of recent decline in C4 vegetation abundance on atmospheric carbon isotopic composition. Communications Earth & Environment, 0, 7, .	4.9	3
294	Insights into evapotranspiration partitioning based on hydrological observations using the generalized proportionality hypothesis. Hydrology and Earth System Sciences, 0, 30, 317-341.	3.4	1
295	Global variation in the ratio of sapwood to leaf area explained by optimality principles. New Phytologist, 0, 250, 181-193.	5.3	1
296	A global analysis of pollen-based reconstructions of land climate changes during Dansgaard–Oeschger events. Climate of the Past, 0, 22, 205-226.	1.8	0
297	Wildfires on a changing planet. Nature Communications, 0, 17, .	10.8	7
298	An eco-evolutionary optimality model explains the acclimated temperature response of photosynthesis. New Phytologist, 0, 250, 2884-2899.	5.3	3
299	Adaptive Sowing Helps Mitigate Future Wheat Losses Globally. Earth's Future, 0, 14, .	4.8	0
300	Environmental influences on the maximum quantum yield of terrestrial primary production. New Phytologist, 0, 251, 1709-1722.	5.3	0
301	Optimal canopy light-use strategy shapes global greenness dynamics. Nature Communications, 0, , .	10.8	0