Thomas A M Pugh

List of Publications by Year
in descending order

94 papers	10,583 citations	66343 42 h-index	42399 92 g-index
143 all docs	143 docs citations	143 times ranked	14160 citing authors

#	Article	IF	Citations
1	Agricultural breadbaskets shift poleward given adaptive farmer behavior under climate change. Global Change Biology, 2022, 28, 167-181.	9.5	23
2	Delayed and altered post-fire recovery pathways of Mediterranean shrubland under 20-year drought manipulation. Forest Ecology and Management, 2022, 506, 119970.	3.2	1
3	A New Modelling Approach to Adaptation-Mitigation in the Land System. Springer Climate, 2022, , 133-140.	0.6	3
4	Are Landâ€Use Change Emissions in Southeast Asia Decreasing or Increasing?. Global Biogeochemical Cycles, 2022, 36, .	4.9	7
5	Assessing taxonomic and functional change in British breeding bird assemblages over time. Global Ecology and Biogeography, 2022, 31, 925-939.	5.8	6
6	Climate Change Risks to Global Forest Health: Emergence of Unexpected Events of Elevated Tree Mortality Worldwide. Annual Review of Plant Biology, 2022, 73, 673-702.	18.7	117
7	Occurrence of crop pests and diseases has largely increased in China since 1970. Nature Food, 2022, 3, 57-65.	14.0	39
8	State of science in carbon budget assessments for temperate forests and grasslands. , 2022, , 237-270.		0
9	Global irrigation contribution to wheat and maize yield. Nature Communications, 2021, 12, 1235.	12.8	61
10	Exploring uncertainties in global crop yield projections in a large ensemble of crop models and CMIP5 and CMIP6 climate scenarios. Environmental Research Letters, 2021, 16, 034040.	5.2	53
11	Potential yield simulated by global gridded crop models: using a process-based emulator to explain their differences. Geoscientific Model Development, 2021, 14, 1639-1656.	3.6	6
12	Increasing climatic sensitivity of global grassland vegetation biomass and species diversity correlates with water availability. New Phytologist, 2021, 230, 1761-1771.	7.3	36
13	Identifying the Drivers of Spatial Taxonomic and Functional Beta-Diversity of British Breeding Birds. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	10
14	Concerns about reported harvests in European forests. Nature, 2021, 592, E15-E17.	27.8	56
15	Strong regional influence of climatic forcing datasets on global crop model ensembles. Agricultural and Forest Meteorology, 2021, 300, 108313.	4.8	17
16	Large potential for crop production adaptation depends on available future varieties. Global Change Biology, 2021, 27, 3870-3882.	9.5	62
17	Taking the pulse of Earth's tropical forests using networks of highly distributed plots. Biological Conservation, 2021, 260, 108849.	4.1	71
18	Climate change projections of terrestrial primary productivity over the Hindu Kush Himalayan forests. Earth System Dynamics, 2021, 12, 857-870.	7.1	5

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19	Large-scale variations in the dynamics of Amazon forest canopy gaps from airborne lidar data and opportunities for tree mortality estimates. Scientific Reports, 2021, 11, 1388.	3.3	32
20	Tree mode of death and mortality risk factors across Amazon forests. Nature Communications, 2020, 11, 5515.	12.8	62
21	Polar amplification of Pliocene climate by elevated trace gas radiative forcing. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 23401-23407.	7.1	15
22	Narrowing uncertainties in the effects of elevated CO2 on crops. Nature Food, 2020, 1, 775-782.	14.0	67
23	The GGCMI Phase 2 experiment: global gridded crop model simulations under uniform changes in CO₂, temperature, water, and nitrogen levels (protocol) Tj ETQq1 1 0.784314 rg BT /Overl	3.6	38
24	Pervasive shifts in forest dynamics in a changing world. Science, 2020, 368, .	12.6	576
25	Interactive climate factors restrict future increases in spring productivity of temperate and boreal trees. Global Change Biology, 2020, 26, 4042-4055.	9.5	34
26	A Dynamic Model for Strategies and Dynamics of Plant Water-Potential Regulation Under Drought Conditions. Frontiers in Plant Science, 2020, 11, 373.	3.6	17
27	Understanding the uncertainty in global forest carbon turnover. Biogeosciences, 2020, 17, 3961-3989.	3.3	45
28	Impacts of future agricultural change on ecosystem service indicators. Earth System Dynamics, 2020, 11, 357-376.	7.1	13
29	The GGCMI PhaseÂ2 emulators: global gridded crop model responses to changes in CO₂, temperature, water, and nitrogen (version 1.0). Geoscientific Model Development, 2020, 13, 3995-4018.	3.6	19
30	Important role of forest disturbances in the global biomass turnover and carbon sinks. Nature Geoscience, 2019, 12, 730-735.	12.9	105
31	Parameterization-induced uncertainties and impacts of crop management harmonization in a global gridded crop model ensemble. PLoS ONE, 2019, 14, e0221862.	2.5	42
32	Systematic variation in North American tree species abundance distributions along macroecological climatic gradients. Global Ecology and Biogeography, 2019, 28, 601-611.	5.8	10
33	The Global Gridded Crop Model Intercomparison phase 1 simulation dataset. Scientific Data, 2019, 6, 50.	5.3	57
34	State-of-the-art global models underestimate impacts from climate extremes. Nature Communications, 2019, 10, 1005.	12.8	168
35	Role of forest regrowth in global carbon sink dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4382-4387.	7.1	370
36	Global Response Patterns of Major Rainfed Crops to Adaptation by Maintaining Current Growing Periods and Irrigation. Earth's Future, 2019, 7, 1464-1480.	6.3	38

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37	Adaptation of global land use and management intensity to changes in climate and atmospheric carbon dioxide. Global Change Biology, 2018, 24, 2791-2809.	9.5	50
38	Spring photosynthetic onset and net <scp>CO</scp>₂ uptake in Alaska triggered by landscape thawing. Global Change Biology, 2018, 24, 3416-3435.	9.5	48
39	Large uncertainty in carbon uptake potential of landâ€based climateâ€change mitigation efforts. Global Change Biology, 2018, 24, 3025-3038.	9.5	56
40	Plant Regrowth as a Driver of Recent Enhancement of Terrestrial CO₂ Uptake. Geophysical Research Letters, 2018, 45, 4820-4830.	4.0	32
41	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
42	Simulating the recent impacts of multiple biotic disturbances on forest carbon cycling across the United States. Global Change Biology, 2018, 24, 2079-2092.	9.5	26
43	Actual European forest management by region, tree species and owner based on 714,000 re-measured trees in national forest inventories. PLoS ONE, 2018, 13, e0207151.	2.5	39
44	A Large Committed Longâ€Term Sink of Carbon due to Vegetation Dynamics. Earth's Future, 2018, 6, 1413-1432.	6.3	24
45	Evapotranspiration simulations in ISIMIP2aâ€”Evaluation of spatio-temporal characteristics with a comprehensive ensemble of independent datasets. Environmental Research Letters, 2018, 13, 075001.	5.2	38
46	Global patterns of crop yield stability under additional nutrient and water inputs. PLoS ONE, 2018, 13, e0198748.	2.5	40
47	Climate Sensitivity Controls Uncertainty in Future Terrestrial Carbon Sink. Geophysical Research Letters, 2018, 45, 4329-4336.	4.0	16
48	Modelling feedbacks between human and natural processes in the land system. Earth System Dynamics, 2018, 9, 895-914.	7.1	65
49	Crop productivity changes in 1.5â€‰Â°C and 2â€‰Â°C worlds under climate sensitivity uncertainty. Environmental Research Letters, 2018, 13, 064007.	5.2	79
50	Consistent negative response of US crops to high temperatures in observations and crop models. Nature Communications, 2017, 8, 13931.	12.8	321
51	Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. Nature Geoscience, 2017, 10, 79-84.	12.9	284
52	Global isoprene and monoterpene emissions under changing climate, vegetation, CO 2 and land use. Atmospheric Environment, 2017, 155, 35-45.	4.1	100
53	Impact of LULCC on the emission of BVOCs during the 21st century. Atmospheric Environment, 2017, 165, 73-87.	4.1	11
54	Spatial and temporal uncertainty of crop yield aggregations. European Journal of Agronomy, 2017, 88, 10-21.	4.1	63

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55	Understanding the weather signal in national cropâ€yield variability. Earth's Future, 2017, 5, 605-616.	6.3	85
56	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. Biogeosciences, 2017, 14, 5053-5067.	3.3	58
57	Global consequences of afforestation and bioenergy cultivation on ecosystem service indicators. Biogeosciences, 2017, 14, 4829-4850.	3.3	33
58	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
59	Global gridded crop model evaluation: benchmarking, skills, deficiencies and implications. Geoscientific Model Development, 2017, 10, 1403-1422.	3.6	213
60	Uncertainties in the land-use flux resulting from land-use change reconstructions and gross land transitions. Earth System Dynamics, 2017, 8, 91-111.	7.1	36
61	Regional disparities in the beneficial effects of rising CO2 concentrations on crop waterÂproductivity. Nature Climate Change, 2016, 6, 786-790.	18.8	190
62	Greening of the Earth and its drivers. Nature Climate Change, 2016, 6, 791-795.	18.8	1,675
63	Accounting for interannual variability in agricultural intensification: The potential of crop selection in Sub-Saharan Africa. Agricultural Systems, 2016, 148, 159-168.	6.1	10
64	Similar estimates of temperature impacts on global wheat yield by three independent methods. Nature Climate Change, 2016, 6, 1130-1136.	18.8	352
65	Climate analogues suggest limited potential for intensification of production on current croplands under climate change. Nature Communications, 2016, 7, 12608.	12.8	80
66	Key knowledge and data gaps in modelling the influence of CO2 concentration on the terrestrial carbon sink. Journal of Plant Physiology, 2016, 203, 3-15.	3.5	41
67	Global change pressures on soils from land use and management. Global Change Biology, 2016, 22, 1008-1028.	9.5	605
68	Impacts of land-use history on the recovery of ecosystems after agricultural abandonment. Earth System Dynamics, 2016, 7, 745-766.	7.1	22
69	Simulated carbon emissions from land-use change are substantially enhanced by accounting for agricultural management. Environmental Research Letters, 2015, 10, 124008.	5.2	103
70	Implications of climate mitigation for future agricultural production. Environmental Research Letters, 2015, 10, 125004.	5.2	49
71	Delivering a Multi-Functional and Resilient Urban Forest. Sustainability, 2015, 7, 4600-4624.	3.2	23
72	Soil carbon management in large-scale Earth system modelling: implications for crop yields and nitrogen leaching. Earth System Dynamics, 2015, 6, 745-768.	7.1	40

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73	Historical and future quantification of terrestrial carbon sequestration from a Greenhouse-Gas-Value perspective. Global Environmental Change, 2015, 32, 153-164.	7.8	20
74	Reconciling Precipitation with Runoff: Observed Hydrological Change in the Midlatitudes. Journal of Hydrometeorology, 2015, 16, 2403-2420.	1.9	7
75	Effect of landâ€use change and management on biogenic volatile organic compound emissions â€" selecting climateâ€smart cultivars. Plant, Cell and Environment, 2015, 38, 1896-1912.	5.7	16
76	Assessing agricultural risks of climate change in the 21st century in a global gridded crop model intercomparison. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3268-3273.	7.1	1,649
77	Multisectoral climate impact hotspots in a warming world. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3233-3238.	7.1	149
78	Emissions of biogenic volatile organic compounds and subsequent photochemical production of secondary organic aerosol in mesocosm studies of temperate and tropical plant species. Atmospheric Chemistry and Physics, 2014, 14, 12781-12801.	4.9	27
79	Effects of the spatial resolution of climate data on estimates of biogenic isoprene emissions. Atmospheric Environment, 2013, 70, 1-6.	4.1	25
80	Influence of boundary layer dynamics and isoprene chemistry on the organic aerosol budget in a tropical forest. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9351-9366.	3.3	14
81	Reply to 'Circadian control of global isoprene emissions'. Nature Geoscience, 2012, 5, 435-436.	12.9	2
82	A Lagrangian model of air-mass photochemistry and mixing using a trajectory ensemble: the Cambridge Tropospheric Trajectory model of Chemistry And Transport (CiTTyCAT) version 4.2. Geoscientific Model Development, 2012, 5, 193-221.	3.6	24
83	A futures-based analysis for urban air quality remediation. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2012, 165, 21-36.	0.7	12
84	Benchmarking sustainability in cities: The role of indicators and future scenarios. Global Environmental Change, 2012, 22, 245-254.	7.8	105
85	Effectiveness of Green Infrastructure for Improvement of Air Quality in Urban Street Canyons. Environmental Science & Technology, 2012, 46, 7692-7699.	10.0	482
86	The impact of local surface changes in Borneo on atmospheric composition at wider spatial scales: coastal processes, land-use change and air quality. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 3210-3224.	4.0	27
87	The influence of small-scale variations in isoprene concentrations on atmospheric chemistry over a tropical rainforest. Atmospheric Chemistry and Physics, 2011, 11, 4121-4134.	4.9	40
88	The atmospheric chemistry of trace gases and particulate matter emitted by different land uses in Borneo. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 3177-3195.	4.0	36
89	Ground-level ozone influenced by circadian control of isoprene emissions. Nature Geoscience, 2011, 4, 671-674.	12.9	59
90	Fluxes and concentrations of volatile organic compounds from a South-East Asian tropical rainforest. Atmospheric Chemistry and Physics, 2010, 10, 8391-8412.	4.9	119

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91	Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools. Atmospheric Chemistry and Physics, 2010, 10, 169-199.	4.9	130
92	Simulating atmospheric composition over a South-East Asian tropical rainforest: performance of a chemistry box model. Atmospheric Chemistry and Physics, 2010, 10, 279-298.	4.9	132
93	Modelling chemistry in the nocturnal boundary layer above tropical rainforest and a generalised effective nocturnal ozone deposition velocity for sub-ppbv NOx conditions. Journal of Atmospheric Chemistry, 2010, 65, 89-110.	3.2	8
94	Nitrogen management is essential to prevent tropical oil palm plantations from causing ground-level ozone pollution. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18447-18451.	7.1	161