Michael Coe

List of Publications by Year
in descending order

105 papers	21,085 citations	30070 54 h-index	30922 102 g-index
111 all docs	111 docs citations	111 times ranked	25417 citing authors

#	Article	IF	Citations
1	Global Consequences of Land Use. Science, 2005, 309, 570-574.	12.6	9,451
2	The Amazon basin in transition. Nature, 2012, 481, 321-328.	27.8	922
3	Cracking Brazil's Forest Code. Science, 2014, 344, 363-364.	12.6	767
4	Testing the performance of a dynamic global ecosystem model: Water balance, carbon balance, and vegetation structure. Global Biogeochemical Cycles, 2000, 14, 795-825.	4.9	608
5	Abrupt increases in Amazonian tree mortality due to droughtâ€“fire interactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6347-6352.	7.1	576
6	Feedbacks between climate and boreal forests during the Holocene epoch. Nature, 1994, 371, 52-54.	27.8	493
7	Impact of vegetation and preferential source areas on global dust aerosol: Results from a model study. Journal of Geophysical Research, 2002, 107, AAC 14-1-AAC 14-27.	3.3	453
8	Amazonia revealed: forest degradation and loss of ecosystem goods and services in the Amazon Basin. Frontiers in Ecology and the Environment, 2007, 5, 25-32.	4.0	439
9	The vulnerability of Amazon freshwater ecosystems. Conservation Letters, 2013, 6, 217-229.	5.7	411
10	The hydrology of the humid tropics. Nature Climate Change, 2012, 2, 655-662.	18.8	284
11	Human and natural impacts on the water resources of the Lake Chad basin. Journal of Geophysical Research, 2001, 106, 3349-3356.	3.3	259
12	Landâ€use change affects water recycling in Brazil's last agricultural frontier. Global Change Biology, 2016, 22, 3405-3413.	9.5	258
13	The influence of historical and potential future deforestation on the stream flow of the Amazon River â€“ Land surface processes and atmospheric feedbacks. Journal of Hydrology, 2009, 369, 165-174.	5.4	240
14	Fireâ€induced tree mortality in a neotropical forest: the roles of bark traits, tree size, wood density and fire behavior. Global Change Biology, 2012, 18, 630-641.	9.5	225
15	Regime Shifts in the Sahara and Sahel: Interactions between Ecological and Climatic Systems in Northern Africa. Ecosystems, 2003, 6, 524-532.	3.4	212
16	Modeling the hydrological impact of land-use change in West Africa. Journal of Hydrology, 2007, 337, 258-268.	5.4	183
17	Dependence of hydropower energy generation on forests in the Amazon Basin at local and regional scales. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9601-9606.	7.1	180
18	El NiÃ±o-Southern oscillation and the climate, ecosystems and rivers of Amazonia. Global Biogeochemical Cycles, 2002, 16, 79-1-79-20.	4.9	162

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19	The potential ecological costs and cobenefits of REDD: a critical review and case study from the Amazon region. Global Change Biology, 2009, 15, 2803-2824.	9.5	157
20	The effects of deforestation and climate variability on the streamflow of the Araguaia River, Brazil. Biogeochemistry, 2011, 105, 119-131.	3.5	155
21	Modeling Terrestrial Hydrological Systems at the Continental Scale: Testing the Accuracy of an Atmospheric GCM. Journal of Climate, 2000, 13, 686-704.	3.2	145
22	Effects of land cover change on evapotranspiration and streamflow of small catchments in the Upper Xingu River Basin, Central Brazil. Journal of Hydrology: Regional Studies, 2015, 4, 108-122.	2.4	142
23	Land surface feedbacks and palaeomonsoons in northern Africa. Geophysical Research Letters, 1998, 25, 3615-3618.	4.0	141
24	The gathering firestorm in southern Amazonia. Science Advances, 2020, 6, eaay1632.	10.3	132
25	Droughts, Wildfires, and Forest Carbon Cycling: A Pantropical Synthesis. Annual Review of Earth and Planetary Sciences, 2019, 47, 555-581.	11.0	131
26	Simulating the surface waters of the Amazon River basin: impacts of new river geomorphic and flow parameterizations. Hydrological Processes, 2008, 22, 2542-2553.	2.6	126
27	Modeling the impact of hydrological changes on nitrate transport in the Mississippi River Basin from 1955 to 1994. Global Biogeochemical Cycles, 2002, 16, 16-1-16-19.	4.9	119
28	A linked global model of terrestrial hydrologic processes: Simulation of modern rivers, lakes, and wetlands. Journal of Geophysical Research, 1998, 103, 8885-8899.	3.3	118
29	Deforestation and climate feedbacks threaten the ecological integrity of southâ€“southeastern Amazonia. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120155.	4.0	118
30	Solving Brazil's land use puzzle: Increasing production and slowing Amazon deforestation. Land Use Policy, 2020, 91, 104362.	5.6	118
31	Calculation of river discharge and prediction of lake height from satellite radar altimetry: Example for the Lake Chad basin. Water Resources Research, 2004, 40, .	4.2	116
32	Simulating fire regimes in the Amazon in response to climate change and deforestation. , 2011, 21, 1573-1590.		114
33	Agricultural expansion dominates climate changes in southeastern Amazonia: the overlooked non-GHG forcing. Environmental Research Letters, 2015, 10, 104015.	5.2	113
34	Small lakes dominate a random sample of regional lake characteristics. Freshwater Biology, 2007, 52, 814-822.	2.4	107
35	Land-use-driven stream warming in southeastern Amazonia. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120153.	4.0	104
36	The fate of Amazonian ecosystems over the coming century arising from changes in climate, atmospheric <scp>CO</scp>_{2,} and land use. Global Change Biology, 2015, 21, 2569-2587.	9.5	97

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37	Long-term simulations of discharge and floods in the Amazon Basin. Journal of Geophysical Research, 2002, 107, LBA 11-1.	3.3	96
38	Deforestation offsets water balance changes due to climate variability in the Xingu River in eastern Amazonia. Journal of Hydrology, 2015, 523, 822-829.	5.4	94
39	Large-scale expansion of agriculture in Amazonia may be a no-win scenario. Environmental Research Letters, 2013, 8, 024021.	5.2	93
40	Brazilâ€™s Market for Trading Forest Certificates. PLoS ONE, 2016, 11, e0152311.	2.5	91
41	Feedbacks between climate and surface water in northern Africa during the middle Holocene. Journal of Geophysical Research, 1997, 102, 11087-11101.	3.3	89
42	Conversion to soy on the Amazonian agricultural frontier increases streamflow without affecting stormflow dynamics. Global Change Biology, 2011, 17, 1821-1833.	9.5	89
43	Feedbacks between deforestation, climate, and hydrology in the Southwestern Amazon: implications for the provision of ecosystem services. Landscape Ecology, 2014, 29, 261-274.	4.2	89
44	The Susceptibility of Southeastern Amazon Forests to Fire: Insights from a Large-Scale Burn Experiment. BioScience, 2015, 65, 893-905.	4.9	89
45	Simulated Response of the Atmosphere-Ocean System to deforestation in the Indonesian Archipelago. Geophysical Research Letters, 2001, 28, 2081-2084.	4.0	79
46	The Unseen Effects of Deforestation: Biophysical Effects on Climate. Frontiers in Forests and Global Change, 2022, 5, .	2.3	77
47	Amazon wildfires: Scenes from a foreseeable disaster. Flora: Morphology, Distribution, Functional Ecology of Plants, 2020, 268, 151609.	1.2	75
48	Watershed responses to Amazon soya bean cropland expansion and intensification. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120425.	4.0	71
49	Ecology, economy and management of an agroindustrial frontier landscape in the southeast Amazon. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120152.	4.0	70
50	Surface water balance of the continental United States, 1963-1995: Regional evaluation of a terrestrial biosphere model and the NCEP/NCAR reanalysis. Journal of Geophysical Research, 2000, 105, 22393-22425.	3.3	69
51	Satellite-based hydrological dynamics of the world's largest continuous wetland. Remote Sensing of Environment, 2015, 170, 1-13.	11.0	64
52	The seasonal carbon and water balances of the Cerrado environment of Brazil: Past, present, and future influences of land cover and land use. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 117, 66-78.	11.1	61
53	Root-Water-Uptake Based upon a New Water Stress Reduction and an Asymptotic Root Distribution Function. Earth Interactions, 2006, 10, 1-22.	1.5	58
54	Forest fragmentation, climate change and understory fire regimes on the Amazonian landscapes of the Xingu headwaters. Landscape Ecology, 2012, 27, 585-598.	4.2	58

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55	Deep soils modify environmental consequences of increased nitrogen fertilizer use in intensifying Amazon agriculture. Scientific Reports, 2018, 8, 13478.	3.3	56
56	Floodplain ecosystem processes. Geophysical Monograph Series, 2009, , 525-541.	0.1	54
57	Current and future patterns of fire-induced forest degradation in Amazonia. Environmental Research Letters, 2017, 12, 095005.	5.2	53
58	Improving simulated Amazon forest biomass and productivity by including spatial variation in biophysical parameters. Biogeosciences, 2013, 10, 2255-2272.	3.3	52
59	Investigation of Hydrological Variability in West Africa Using Land Surface Models. Journal of Climate, 2005, 18, 3173-3188.	3.2	49
60	The Forests of the Amazon and Cerrado Moderate Regional Climate and Are the Key to the Future. Tropical Conservation Science, 2017, 10, 194008291772067.	1.2	49
61	Comparison of the climate simulated by the CCM3 coupled to two different land-surface models. Climate Dynamics, 2002, 19, 657-669.	3.8	47
62	A review of green- and blue-water resources and their trade-offs for future agricultural production in the Amazon Basin: what could irrigated agriculture mean for Amazonia?. Hydrology and Earth System Sciences, 2016, 20, 2179-2194.	4.9	44
63	Simulating Continental Surface Waters: An Application to Holocene Northern Africa. Journal of Climate, 1997, 10, 1680-1689.	3.2	43
64	Prolonged tropical forest degradation due to compounding disturbances: Implications for CO₂ and H₂O fluxes. Global Change Biology, 2019, 25, 2855-2868.	9.5	43
65	Carbon and water cycling in lake-rich landscapes: Landscape connections, lake hydrology, and biogeochemistry. Journal of Geophysical Research, 2007, 112, .	3.3	42
66	Climatic limit for agriculture in Brazil. Nature Climate Change, 2021, 11, 1098-1104.	18.8	40
67	Reimagining the potential of Earth observations for ecosystem service assessments. Science of the Total Environment, 2019, 665, 1053-1063.	8.0	39
68	Climate risks to Amazon agriculture suggest a rationale to conserve local ecosystems. Frontiers in Ecology and the Environment, 2019, 17, 584-590.	4.0	36
69	Effects of experimental fuel additions on fire intensity and severity: unexpected carbon resilience of a neotropical forest. Global Change Biology, 2016, 22, 2516-2525.	9.5	35
70	The water balance of northern Africa during the mid-Holocene: an evaluation of the 6 ka BP PMIP simulations. Climate Dynamics, 2002, 19, 155-166.	3.8	34
71	Changing Amazon biomass and the role of atmospheric CO₂ concentration, climate, and land use. Global Biogeochemical Cycles, 2016, 30, 18-39.	4.9	32
72	BULC-U: Sharpening Resolution and Improving Accuracy of Land-Use/Land-Cover Classifications in Google Earth Engine. Remote Sensing, 2018, 10, 1455.	4.0	30

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73	Hydrologic budget of a land surface model: A global application. Journal of Geophysical Research, 1996, 101, 16921-16930.	3.3	28
74	Evaluating Water Use for Agricultural Intensification in Southern Amazonia Using the Water Footprint Sustainability Assessment. Water (Switzerland), 2018, 10, 349.	2.7	27
75	Amazon floodplain hydrology and implications for aquatic conservation. Aquatic Conservation: Marine and Freshwater Ecosystems, 2021, 31, 1029-1040.	2.0	26
76	Land use, land cover, and climate change across the Mississippi Basin: Impacts on selected land and water resources. Geophysical Monograph Series, 2004, , 249-261.	0.1	25
77	Evaluating the seasonal and interannual variations in water balance in northern Wisconsin using a land surface model. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	24
78	Estimating Seasonal Changes in Volumetric Soil Water Content at Landscape Scales in a Savanna Ecosystem Using Two-Dimensional Resistivity Profiling. Earth Interactions, 2008, 12, 1-25.	1.5	24
79	Beyond Deforestation: Carbon Emissions From Land Grabbing and Forest Degradation in the Brazilian Amazon. Frontiers in Forests and Global Change, 2021, 4, .	2.3	23
80	Impacts of Climate Variation and Catchment Area on Water Balance and Lake Hydrologic Type in Groundwater-Dominated Systems: A Generic Lake Model. Earth Interactions, 2004, 8, 1-24.	1.5	20
81	Land use changes in Southeastern Amazon and trends in rainfall and water yield of the Xingu River during 1976â€“2015. Climatic Change, 2020, 162, 1419-1436.	3.6	20
82	Equivalent water thickness in savanna ecosystems: MODIS estimates based on ground and EO-1 Hyperion data. International Journal of Remote Sensing, 2011, 32, 7423-7440.	2.9	19
83	Effects of climatic variability and deforestation on surface water regimes. Geophysical Monograph Series, 2009, , 543-553.	0.1	18
84	How much inundation occurs in the Amazon River basin?. Remote Sensing of Environment, 2022, 278, 113099.	11.0	18
85	A macroscale hydrological data set of river flow routing parameters for the Amazon Basin. Journal of Geophysical Research, 2002, 107, LBA 6-1.	3.3	17
86	Surprisingly Modest Water Quality Impacts From Expansion and Intensification of Large-Sscale Commercial Agriculture in the Brazilian Amazon-Cerrado Region. Tropical Conservation Science, 2017, 10, 194008291772066.	1.2	17
87	Trends in streamflow, evapotranspiration, and groundwater storage across the Amazon Basin linked to changing precipitation and land cover. Journal of Hydrology: Regional Studies, 2020, 32, 100755.	2.4	16
88	Potential shifts in the aboveground biomass and physiognomy of a seasonally dry tropical forest in a changing climate. Environmental Research Letters, 2020, 15, 034053.	5.2	16
89	Droughts Amplify Differences Between the Energy Balance Components of Amazon Forests and Croplands. Remote Sensing, 2020, 12, 525.	4.0	15
90	Agricultural Expansion in Mato Grosso from 1986â€“2000: A Bayesian Time Series Approach to Tracking Past Land Cover Change. Remote Sensing, 2020, 12, 688.	4.0	12

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91	Land-Ocean-Atmosphere Interactions and Monsoon Climate Change. , 2001, , 73-86.		12
92	The Hydrologic Cycle of Major Continental Drainage and Ocean Basins: A Simulation of the Modern and Mid-Holocene Conditions and a Comparison with Observations. Journal of Climate, 1995, 8, 535-543.	3.2	11
93	Controls of climatic variability and land cover on land surface hydrology of northern Wisconsin, USA. Journal of Geophysical Research, 2008, 113, .	3.3	10
94	The Hydrology and Energy Balance of the Amazon Basin. Ecological Studies, 2016, , 35-53.	1.2	10
95	Impacts of Variations in Caspian Sea Surface Area on Catchmentâ€Scale and Largeâ€Scale Climate. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034251.	3.3	10
96	A close look at above ground biomass of a large and heterogeneous Seasonally Dry Tropical Forest - Caatinga in North East of Brazil. Anais Da Academia Brasileira De Ciencias, 2020, 92, e20190282.	0.8	9
97	Land Use and Climate. Remote Sensing and Digital Image Processing, 2012, , 301-314.	0.7	8
98	Indirect relationship between surface water budget and wetland extent. Geophysical Research Letters, 2002, 29, 5-1.	4.0	6
99	Science in support of Amazonian conservation in the 21st century: the case of Brazil. Biotropica, 2018, 50, 850-858.	1.6	6
100	Coupling the terrestrial hydrology model with biogeochemistry to the integrated LAND surface model: Amazon Basin applications. Hydrological Sciences Journal, 2018, 63, 1954-1966.	2.6	5
101	Water fluxes in the central Brazilian savanna: Seasonal patterns and land cover interdependencies as observed from GRACE, TRMM, and MODIS data. , 2012, , .		2
102	Land-Atmosphere Interactions. Advances in Meteorology, 2016, 2016, 1-1.	1.6	1
103	Modeling Nitrous Oxide Emissions From Large-Scale Intensive Cropping Systems in the Southern Amazon. Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	1
104	Chapter 23: Impacts of deforestation and climate change on biodiversity, ecological processes, and environmental adaptation. , 2021, , .		1
105	Collective action can avoid the â€œtragedy of the Amazon commonsâ€• Frontiers in Ecology and the Environment, 2020, 18, 430-431.	4.0	0