Patrick Meir

List of Publications by Citations

195 papers	17,291 citations	69 h-index	128 g-index
205 ext. papers	20,721 ext. citations	8 avg, IF	6.15 L-index

#	Paper	IF	Citations
195	Drought sensitivity of the Amazon rainforest. *Science*, **2009**, 323, 1344-7	33.3	1213
194	Exploring the likelihood and mechanism of a climate-change-induced dieback of the Amazon rainforest. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 20610-5	11.5	628
193	The regional variation of aboveground live biomass in old-growth Amazonian forests. *Global Change Biology*, **2006**, 12, 1107-1138	11.4	424
192	Productivity and carbon fluxes of tropical savannas. *Journal of Biogeography*, **2006**, 33, 387-400	4.1	411
191	Drought-mortality relationships for tropical forests. *New Phytologist*, **2010**, 187, 631-46	9.8	400
190	TRY plant trait database - enhanced coverage and open access. *Global Change Biology*, **2020**, 26, 119-188	11.4	399
189	Temperature sensitivity of soil respiration rates enhanced by microbial community response. *Nature*, **2014**, 513, 81-4	50.4	368
188	Drought and ecosystem carbon cycling. *Agricultural and Forest Meteorology*, **2011**, 151, 765-773	5.8	359
187	Carbon Dioxide Uptake by an Undisturbed Tropical Rain Forest in Southwest Amazonia, 1992 to 1993. *Science*, **1995**, 270, 778-780	33.3	358
186	Drought impact on forest carbon dynamics and fluxes in Amazonia. *Nature*, **2015**, 519, 78-82	50.4	341
185	Death from drought in tropical forests is triggered by hydraulics not carbon starvation. *Nature*, **2015**, 528, 119-22	50.4	339
184	Simulated resilience of tropical rainforests to CO2-induced climate change. *Nature Geoscience*, **2013**, 6, 268-273	18.3	293
183	Optimal stomatal behaviour around the world. *Nature Climate Change*, **2015**, 5, 459-464	21.4	264
182	Microbes do not follow the elevational diversity patterns of plants and animals. *Ecology*, **2011**, 92, 797-804	4.6	257
181	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. *New Phytologist*, **2015**, 206, 614-36	9.8	244
180	An international network to monitor the structure, composition and dynamics of Amazonian forests (RAINFOR). *Journal of Vegetation Science*, **2002**, 13, 439-450	3.1	242
179	Acclimation of photosynthetic capacity to irradiance in tree canopies in relation to leaf nitrogen concentration and leaf mass per unit area. *Plant, Cell and Environment*, **2002**, 25, 343-357	8.4	241

178	Effect of 7 yr of experimental drought on vegetation dynamics and biomass storage of an eastern Amazonian rainforest. *New Phytologist*, **2010**, 187, 579-91	9.8	236
177	A simple calibrated model of Amazon rainforest productivity based on leaf biochemical properties. *Plant, Cell and Environment*, **1995**, 18, 1129-1145	8.4	228
176	The response of an Eastern Amazonian rain forest to drought stress: results and modelling analyses from a throughfall exclusion experiment. *Global Change Biology*, **2007**, 13, 2361-2378	11.4	226
175	Upslope migration of Andean trees. *Journal of Biogeography*, **2011**, 38, 783-791	4.1	225
174	Assessing uncertainties in a second-generation dynamic vegetation model caused by ecological scale limitations. *New Phytologist*, **2010**, 187, 666-81	9.8	225
173	Confronting model predictions of carbon fluxes with measurements of Amazon forests subjected to experimental drought. *New Phytologist*, **2013**, 200, 350-365	9.8	214
172	Drivers and mechanisms of tree mortality in moist tropical forests. *New Phytologist*, **2018**, 219, 851-869	9.8	209
171	Markedly divergent estimates of Amazon forest carbon density from ground plots and satellites. *Global Ecology and Biogeography*, **2014**, 23, 935-946	6.1	205
170	Integrating plant–soil interactions into global carbon cycle models. *Journal of Ecology*, **2009**, 97, 851-863	6	205
169	Introduction: Elevation gradients in the tropics: laboratories for ecosystem ecology and global change research. *Global Change Biology*, **2010**, 16, 3171-3175	11.4	189
168	Fluxes of carbon dioxide and water vapour over an undisturbed tropical forest in south-west Amazonia. *Global Change Biology*, **1995**, 1, 1-12	11.4	183
167	Above- and below-ground net primary productivity across ten Amazonian forests on contrasting soils. *Biogeosciences*, **2009**, 6, 2759-2778	4.6	182
166	The use of eddy covariance to infer the net carbon dioxide uptake of Brazilian rain forest. *Global Change Biology*, **1996**, 2, 209-217	11.4	176
165	Measuring biomass changes due to woody encroachment and deforestation/degradation in a forest–savanna boundary region of central Africa using multi-temporal L-band radar backscatter. *Remote Sensing of Environment*, **2011**, 115, 2861-2873	13.2	175
164	Fluxes of carbon, water and energy over Brazilian cerrado: an analysis using eddy covariance and stable isotopes. *Plant, Cell and Environment*, **1997**, 20, 315-328	8.4	165
163	Photosynthetic capacity in a central Amazonian rain forest. *Tree Physiology*, **2000**, 20, 179-186	4.2	165
162	Multiple mechanisms of Amazonian forest biomass losses in three dynamic global vegetation models under climate change. *New Phytologist*, **2010**, 187, 647-65	9.8	162
161	Evidence from Amazonian forests is consistent with isohydric control of leaf water potential. *Plant, Cell and Environment*, **2006**, 29, 151-65	8.4	156

160	Soil CO2 efflux in a tropical forest in the central Amazon. *Global Change Biology*, **2004**, 10, 601-617	11.4	156
159	Co-limitation of photosynthetic capacity by nitrogen and phosphorus in West Africa woodlands. *Plant, Cell and Environment*, **2010**, 33, 959-80	8.4	154
158	Linking hydraulic traits to tropical forest function in a size-structured and trait-driven model (TFS´v.1-Hydro). *Geoscientific Model Development*, **2016**, 9, 4227-4255	6.3	150
157	Convergence in the temperature response of leaf respiration across biomes and plant functional types. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3832-7	11.5	139
156	Nutrient limitation in rainforests and cloud forests along a 3,000-m elevation gradient in the Peruvian Andes. *Oecologia*, **2013**, 172, 889-902	2.9	139
155	Understanding the relationships between ecosystem services and poverty alleviation: A conceptual framework. *Ecosystem Services*, **2014**, 7, 34-45	6.1	138
154	Mapping tropical forest biomass with radar and spaceborne LiDAR in Lop National Park, Gabon: overcoming problems of high biomass and persistent cloud. *Biogeosciences*, **2012**, 9, 179-191	4.6	134
153	Microbial community composition explains soil respiration responses to changing carbon inputs along an Andes-to-Amazon elevation gradient. *Journal of Ecology*, **2014**, 102, 1058-1071	6	133
152	Thermal limits of leaf metabolism across biomes. *Global Change Biology*, **2017**, 23, 209-223	11.4	126
151	Seasonality in CO2 and H2O flux at an eastern Amazonian rain forest. *Journal of Geophysical Research*, **2002**, 107, LBA 43-1		126
150	The sensitivity of tropical leaf litter decomposition to temperature: results from a large-scale leaf translocation experiment along an elevation gradient in Peruvian forests. *New Phytologist*, **2011**, 189, 967-977	9.8	124
149	The effect of aqueous transport of CO(2) in xylem sap on gas exchange in woody plants. *Tree Physiology*, **1999**, 19, 53-58	4.2	120
148	The effects of water availability on root growth and morphology in an Amazon rainforest. *Plant and Soil*, **2008**, 311, 189-199	4.2	113
147	The fate of assimilated carbon during drought: impacts on respiration in Amazon rainforests. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2008**, 363, 1849-55	5.8	110
146	The linkages between photosynthesis, productivity, growth and biomass in lowland Amazonian forests. *Global Change Biology*, **2015**, 21, 2283-95	11.4	105
145	Mapping local and global variability in plant trait distributions. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E10937-E10946	11.5	103
144	Variation in stem mortality rates determines patterns of above-ground biomass in Amazonian forests: implications for dynamic global vegetation models. *Global Change Biology*, **2016**, 22, 3996-4013	11.4	99
143	Strengthening conceptual foundations: Analysing frameworks for ecosystem services and poverty alleviation research. *Global Environmental Change*, **2013**, 23, 1098-1111	10.1	99

142	The influence of terrestrial ecosystems on climate. *Trends in Ecology and Evolution*, **2006**, 21, 254-60	10.9	98
141	Effects of an induced drought on soil carbon dioxide (CO2) efflux and soil CO2 production in an Eastern Amazonian rainforest, Brazil. *Global Change Biology*, **2007**, 13, 2218-2229	11.4	97
140	Microbes follow Humboldt: temperature drives plant and soil microbial diversity patterns from the Amazon to the Andes. *Ecology*, **2018**, 99, 2455-2466	4.6	95
139	Shifts in plant respiration and carbon use efficiency at a large-scale drought experiment in the eastern Amazon. *New Phytologist*, **2010**, 187, 608-21	9.8	93
138	A test of the 'one-point method' for estimating maximum carboxylation capacity from field-measured, light-saturated photosynthesis. *New Phytologist*, **2016**, 210, 1130-44	9.8	92
137	How do leaf and ecosystem measures of water-use efficiency compare?. *New Phytologist*, **2017**, 216, 758-770	9.8	89
136	Drought-related tree mortality: addressing the gaps in understanding and prediction. *New Phytologist*, **2015**, 207, 28-33	9.8	89
135	Factors controlling spatio-temporal variation in carbon dioxide efflux from surface litter, roots, and soil organic matter at four rain forest sites in the eastern Amazon. *Journal of Geophysical Research*, **2007**, 112, n/a-n/a		82
134	Threshold Responses to Soil Moisture Deficit by Trees and Soil in Tropical Rain Forests: Insights from Field Experiments. *BioScience*, **2015**, 65, 882-892	5.7	79
133	Climate dependence of heterotrophic soil respiration from a soil-translocation experiment along a 3000 m tropical forest altitudinal gradient. *European Journal of Soil Science*, **2009**, 60, 895-906	3.4	75
132	Ecosystem Carbon Storage Across the Grassland–Forest Transition in the High Andes of Manu National Park, Peru. *Ecosystems*, **2010**, 13, 1097-1111	3.9	74
131	Light distribution and foliage structure in an oak canopy. *Trees - Structure and Function*, **1999**, 14, 55	2.6	74
130	The productivity, metabolism and carbon cycle of two lowland tropical forest plots in south-western Amazonia, Peru. *Plant Ecology and Diversity*, **2014**, 7, 85-105	2.2	73
129	Branch xylem density variations across the Amazon Basin. *Biogeosciences*, **2009**, 6, 545-568	4.6	73
128	Altitudinal variation in leaf mass per unit area, leaf tissue density and foliar nitrogen and phosphorus content along an Amazon-Andes gradient in Peru. *Plant Ecology and Diversity*, **2009**, 2, 243-254	2.2	73
127	Scaling relationships for woody tissue respiration in two tropical rain forests. *Plant, Cell and Environment*, **2002**, 25, 963-973	8.4	71
126	The variation of productivity and its allocation along a tropical elevation gradient: a whole carbon budget perspective. *New Phytologist*, **2017**, 214, 1019-1032	9.8	68
125	Photosynthetic parameters in seedlings of Eucalyptus grandis as affected by rate of nitrogen supply. *Plant, Cell and Environment*, **2002**, 25, 1677-1688	8.4	68

124	Implications of improved representations of plant respiration in a changing climate. *Nature Communications*, **2017**, 8, 1602	17.4	67
123	Leaf respiration in two tropical rainforests: constraints on physiology by phosphorus, nitrogen and temperature. *Functional Ecology*, **2001**, 15, 378-387	5.6	66
122	Litter contribution to diurnal and annual soil respiration in a tropical montane cloud forest. *Soil Biology and Biochemistry*, **2009**, 41, 1338-1340	7.5	65
121	Solar radiation and functional traits explain the decline of forest primary productivity along a tropical elevation gradient. *Ecology Letters*, **2017**, 20, 730-740	10	62
120	Leaf-level photosynthetic capacity in lowland Amazonian and high-elevation Andean tropical moist forests of Peru. *New Phytologist*, **2017**, 214, 1002-1018	9.8	62
119	Environmental distribution and abundance of the facultative methanotroph Methylocella. *ISME Journal*, **2011**, 5, 1061-6	11.9	61
118	Can composition and physical protection of soil organic matter explain soil respiration temperature sensitivity?. *Biogeochemistry*, **2012**, 107, 423-436	3.8	60
117	Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments. *Biogeosciences*, **2014**, 11, 2991-3013	4.6	60
116	An empirical method that separates irreversible stem radial growth from bark water content changes in trees: theory and case studies. *Plant, Cell and Environment*, **2017**, 40, 290-303	8.4	58
115	No Differences in Soil Carbon Stocks Across the Tree Line in the Peruvian Andes. *Ecosystems*, **2010**, 13, 62-74	3.9	57
114	A method for extracting plant roots from soil which facilitates rapid sample processing without compromising measurement accuracy. *New Phytologist*, **2007**, 174, 697-703	9.8	57
113	Balancing the risks of hydraulic failure and carbon starvation: a twig scale analysis in declining Scots pine. *Plant, Cell and Environment*, **2015**, 38, 2575-88	8.4	56
112	Productivity and carbon allocation in a tropical montane cloud forest in the Peruvian Andes. *Plant Ecology and Diversity*, **2014**, 7, 107-123	2.2	55
111	Temporal variation and climate dependence of soil respiration and its components along a 3000 m altitudinal tropical forest gradient. *Global Biogeochemical Cycles*, **2010**, 24, n/a-n/a	5.9	55
110	Climate Warming and Soil Carbon in Tropical Forests: Insights from an Elevation Gradient in the Peruvian Andes. *BioScience*, **2015**, 65, 906-921	5.7	53
109	After more than a decade of soil moisture deficit, tropical rainforest trees maintain photosynthetic capacity, despite increased leaf respiration. *Global Change Biology*, **2015**, 21, 4662-72	11.4	53
108	Soil carbon loss by experimental warming in a tropical forest. *Nature*, **2020**, 584, 234-237	50.4	51
107	Nutrient limitations to bacterial and fungal growth during cellulose decomposition in tropical forest soils. *Biology and Fertility of Soils*, **2018**, 54, 219-228	6.1	50

106	Evidence for strong seasonality in the carbon storage and carbon use efficiency of an Amazonian forest. *Global Change Biology*, **2014**, 20, 979-91	11.4	49
105	Evaluating climatic and soil water controls on evapotranspiration at two Amazonian rainforest sites. *Agricultural and Forest Meteorology*, **2008**, 148, 850-861	5.8	49
104	Modelling tropical forest responses to drought and El Niño with a stomatal optimization model based on xylem hydraulics. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 373,	5.8	49
103	Stomatal optimization based on xylem hydraulics (SOX) improves land surface model simulation of vegetation responses to climate. *New Phytologist*, **2020**, 226, 1622-1637	9.8	48
102	Plasticity in leaf-level water relations of tropical rainforest trees in response to experimental drought. *New Phytologist*, **2016**, 211, 477-88	9.8	46
101	Identifying areas at risk of drought-induced tree mortality across South-Eastern Australia. *Global Change Biology*, **2020**, 26, 5716-5733	11.4	45
100	Photosynthetic parameters, dark respiration and leaf traits in the canopy of a Peruvian tropical montane cloud forest. *Oecologia*, **2012**, 168, 23-34	2.9	45
99	Temperature sensitivity of soil enzymes along an elevation gradient in the Peruvian Andes. *Biogeochemistry*, **2016**, 127, 217-230	3.8	45
98	Ecosystem respiration and net primary productivity after 8–10 years of experimental through-fall reduction in an eastern Amazon forest. *Plant Ecology and Diversity*, **2014**, 7, 7-24	2.2	43
97	Photographic method to measure the vertical distribution of leaf area density in forests. *Agricultural and Forest Meteorology*, **2000**, 102, 105-111	5.8	43
96	Soil microbial nutrient constraints along a tropical forest elevation gradient: a belowground test of a biogeochemical paradigm. *Biogeosciences*, **2015**, 12, 6071-6083	4.6	42
95	Adaptation of soil microbial growth to temperature: Using a tropical elevation gradient to predict future changes. *Global Change Biology*, **2019**, 25, 827-838	11.4	41
94	Differences in xylem and leaf hydraulic traits explain differences in drought tolerance among mature Amazon rainforest trees. *Global Change Biology*, **2017**, 23, 4280-4293	11.4	40
93	Leaf water storage increases with salinity and aridity in the mangrove Avicennia marina: integration of leaf structure, osmotic adjustment and access to multiple water sources. *Plant, Cell and Environment*, **2017**, 40, 1576-1591	8.4	40
92	Light inhibition of leaf respiration as soil fertility declines along a post-glacial chronosequence in New Zealand: an analysis using the Kok method. *Plant and Soil*, **2013**, 367, 163-182	4.2	39
91	Seasonal production, allocation and cycling of carbon in two mid-elevation tropical montane forest plots in the Peruvian Andes. *Plant Ecology and Diversity*, **2014**, 7, 125-142	2.2	38
90	Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites. *Biogeosciences*, **2018**, 15, 3421-3437	4.6	36
89	Biogeographic distributions of neotropical trees reflect their directly measured drought tolerances. *Scientific Reports*, **2017**, 7, 8334	4.9	35

88	Carbon and nitrogen inputs differentially affect priming of soil organic matter in tropical lowland and montane soils. *Soil Biology and Biochemistry*, **2019**, 129, 212-222	7.5	35
87	Seasonal trends of Amazonian rainforest phenology, net primary productivity, and carbon allocation. *Global Biogeochemical Cycles*, **2016**, 30, 700-715	5.9	34
86	First comparison of quantitative estimates of termite biomass and abundance reveals strong intercontinental differences. *Journal of Tropical Ecology*, **2014**, 30, 143-152	1.3	34
85	The sensitivity of wood production to seasonal and interannual variations in climate in a lowland Amazonian rainforest. *Oecologia*, **2014**, 174, 295-306	2.9	34
84	Soil Carbon Dynamics. *Geophysical Monograph Series*, **2009**, 429-449	1.1	34
83	Source and sink carbon dynamics and carbon allocation in the Amazon basin. *Global Biogeochemical Cycles*, **2015**, 29, 645-655	5.9	33
82	Impacts of experimentally imposed drought on leaf respiration and morphology in an Amazon rain forest. *Functional Ecology*, **2010**, 24, 524-533	5.6	33
81	Amazon forest biomass density maps: tackling the uncertainty in carbon emission estimates. *Climatic Change*, **2014**, 124, 545-560	4.5	32
80	Predicting the response of the Amazon rainforest to persistent drought conditions under current and future climates: a major challenge for global land surface models. *Geoscientific Model Development*, **2014**, 7, 2933-2950	6.3	32
79	A comparison of methods for converting rhizotron root length measurements into estimates of root mass production per unit ground area. *Plant and Soil*, **2007**, 301, 279-288	4.2	32
78	Rainfall manipulation experiments as simulated by terrestrial biosphere models: Where do we stand?. *Global Change Biology*, **2020**, 26, 3336-3355	11.4	30
77	Manipulative experiments demonstrate how long-term soil moisture changes alter controls of plant water use. *Environmental and Experimental Botany*, **2018**, 152, 19-27	5.9	30
76	Ecosystem protection and poverty alleviation in the tropics: Perspective from a historical evolution of policy-making in the Brazilian Amazon. *Ecosystem Services*, **2014**, 8, 97-109	6.1	30
75	Nitrogen and phosphorus availabilities interact to modulate leaf trait scaling relationships across six plant functional types in a controlled-environment study. *New Phytologist*, **2017**, 215, 992-1008	9.8	29
74	Modelling climate change responses in tropical forests: similar productivity estimates across five models, but different mechanisms and responses. *Geoscientific Model Development*, **2015**, 8, 1097-1110	6.3	29
73	Source to sink: Evolution of lignin composition in the Madre de Dios River system with connection to the Amazon basin and offshore. *Journal of Geophysical Research G: Biogeosciences*, **2016**, 121, 1316-1338	3.7	29
72	Modelling Amazonian forest eddy covariance data: a comparison of big leaf versus sun/shade models for the C-14 tower at Manaus I. Canopy photosynthesis. *Acta Amazonica*, **2006**, 36, 69-82	0.8	29
71	ENSO Drives interannual variation of forest woody growth across the tropics. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 373,	5.8	28

70	Methane and nitrous oxide fluxes across an elevation gradient in the tropical Peruvian Andes. *Biogeosciences*, **2014**, 11, 2325-2339	4.6	26
69	Multiple phosphorus acquisition strategies adopted by fine roots in low-fertility soils in Central Amazonia. *Plant and Soil*, **2020**, 450, 49-63	4.2	26
68	Sample sizes for estimating key ecosystem characteristics in a tropical terra firme rainforest. *Forest Ecology and Management*, **2008**, 255, 558-566	3.9	25
67	Gross Primary Productivity of a High Elevation Tropical Montane Cloud Forest. *Ecosystems*, **2014**, 17, 751	3.9	24
66	Tree mode of death and mortality risk factors across Amazon forests. *Nature Communications*, **2020**, 11, 5515	17.4	24
65	Annual variation in soil respiration and its component parts in two structurally contrasting woody savannas in Central Brazil. *Plant and Soil*, **2012**, 352, 129-142	4.2	23
64	Microbial carbon mineralization in tropical lowland and montane forest soils of Peru. *Frontiers in Microbiology*, **2014**, 5, 720	5.7	23
63	A novel application of satellite radar data: measuring carbon sequestration and detecting degradation in a community forestry project in Mozambique. *Plant Ecology and Diversity*, **2013**, 6, 159-170	2.2	23
62	Amazonia trees have limited capacity to acclimate plant hydraulic properties in response to long-term drought. *Global Change Biology*, **2020**, 26, 3569-3584	11.4	22
61	Plumbing the depths: extracellular water storage in specialized leaf structures and its functional expression in a three-domain pressure -volume relationship. *Plant, Cell and Environment*, **2017**, 40, 1021-1038	8.4	22
60	Stand dynamics modulate water cycling and mortality risk in droughted tropical forest. *Global Change Biology*, **2018**, 24, 249-258	11.4	22
59	Foliar water uptake in Amazonian trees: Evidence and consequences. *Global Change Biology*, **2019**, 25, 2678-2690	11.4	20
58	What controls variation in carbon use efficiency among Amazonian tropical forests?. *Biotropica*, **2018**, 50, 16-25	2.3	20
57	Seasonality of above-ground net primary productivity along an Andean altitudinal transect in Peru. *Journal of Tropical Ecology*, **2014**, 30, 503-519	1.3	20
56	An international network to monitor the structure, composition and dynamics of Amazonian forests (RAINFOR) **2002**, 13, 439		20
55	Scaling leaf respiration with nitrogen and phosphorus in tropical forests across two continents. *New Phytologist*, **2017**, 214, 1064-1077	9.8	19
54	Drought stress and tree size determine stem CO efflux in a tropical forest. *New Phytologist*, **2018**, 218, 1393-1405	9.8	19
53	Biome-specific effects of nitrogen and phosphorus on the photosynthetic characteristics of trees at a forest-savanna boundary in Cameroon. *Oecologia*, **2015**, 178, 659-72	2.9	18

52	Microbial responses to warming enhance soil carbon loss following translocation across a tropical forest elevation gradient. *Ecology Letters*, **2019**, 22, 1889-1899	10	18
51	Short-term effects of drought on tropical forest do not fully predict impacts of repeated or long-term drought: gas exchange versus growth. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 373,	5.8	18
50	Shock and stabilisation following long-term drought in tropical forest from 15 years of litterfall dynamics. *Journal of Ecology*, **2018**, 106, 1673-1682	6	17
49	Isoprene emission structures tropical tree biogeography and community assembly responses to climate. *New Phytologist*, **2018**, 220, 435-446	9.8	17
48	Limited acclimation in leaf anatomy to experimental drought in tropical rainforest trees. *Tree Physiology*, **2016**, 36, 1550-1561	4.2	17
47	Guidelines and considerations for designing field experiments simulating precipitation extremes in forest ecosystems. *Methods in Ecology and Evolution*, **2018**, 9, 2310-2325	7.7	15
46	Rapid responses of root traits and productivity to phosphorus and cation additions in a tropical lowland forest in Amazonia. *New Phytologist*, **2021**, 230, 116-128	9.8	14
45	Exceptionally high mangrove root production rates in the Kelantan Delta, Malaysia; An experimental and comparative study. *Forest Ecology and Management*, **2019**, 444, 214-224	3.9	13
44	The Response of Tropical Rainforest Dead Wood Respiration to Seasonal Drought. *Ecosystems*, **2013**, 16, 1294-1309	3.9	13
43	Global transpiration data from sap flow measurements: the SAPFLUXNET database. *Earth System Science Data*, **2021**, 13, 2607-2649	10.5	13
42	Describing termite assemblage structure in a Peruvian lowland tropical rain forest: a comparison of two alternative methods. *Insectes Sociaux*, **2015**, 62, 141-150	1.5	12
41	The effects of drought on tropical forest ecosystems **2005**, 75-84		12
40	Equivalence of foliar water uptake and stomatal conductance?. *Plant, Cell and Environment*, **2020**, 43, 524-528	8.4	12
39	Separating species and environmental determinants of leaf functional traits in temperate rainforest plants along a soil-development chronosequence. *Functional Plant Biology*, **2016**, 43, 751-765	2.7	12
38	The Global Ecosystems Monitoring network: Monitoring ecosystem productivity and carbon cycling across the tropics. *Biological Conservation*, **2021**, 253, 108889	6.2	12
37	Termites promote soil carbon and nitrogen depletion: Results from an in situ macrofauna exclusion experiment, Peru. *Soil Biology and Biochemistry*, **2014**, 77, 109-111	7.5	11
36	Root traits explain plant species distributions along climatic gradients yet challenge the nature of ecological trade-offs. *Nature Ecology and Evolution*, **2021**, 5, 1123-1134	12.3	11
35	Comparative assessment of the sensitivity of oilseed rape and wheat to limited water supply. *Annals of Applied Biology*, **2015**, 167, 102-115	2.6	10

34	Drivers of atmospheric methane uptake by montane forest soils in the southern Peruvian Andes. *Biogeosciences*, **2016**, 13, 4151-4165	4.6	10
33	Acclimation of leaf respiration temperature responses across thermally contrasting biomes. *New Phytologist*, **2021**, 229, 1312-1325	9.8	10
32	The importance of physiological, structural and trait responses to drought stress in driving spatial and temporal variation in GPP across Amazon forests. *Biogeosciences*, **2019**, 16, 4463-4484	4.6	9
31	Evolutionary heritage shapes tree distributions along an Amazon-to-Andes elevation gradient. *Biotropica*, **2021**, 53, 38-50	2.3	9
30	Detecting forest response to droughts with global observations of vegetation water content. *Global Change Biology*, **2021**, 27, 6005-6024	11.4	9
29	Plant Structure-Function Relationships and Woody Tissue Respiration: Upscaling to Forests from Laser-Derived Measurements. *Advances in Photosynthesis and Respiration*, **2017**, 89-105	1.7	8
28	Transpiraß em espßie de grande porte na Floresta Nacional de Caxiuan□Par□*Revista Brasileira De Engenharia Agricola E Ambiental*, **2007**, 11, 180-189	0.9	8
27	The impact of a simple representation of non-structural carbohydrates on the simulated response of tropical forests to drought. *Biogeosciences*, **2020**, 17, 3589-3612	4.6	6
26	Small tropical forest trees have a greater capacity to adjust carbon metabolism to long-term drought than large canopy trees. *Plant, Cell and Environment*, **2020**, 43, 2380-2393	8.4	6
25	Effects of natural and experimental drought on soil fungi and biogeochemistry in an Amazon rain forest. *Communications Earth & Environment*, **2021**, 2,	6.1	6
24	Canopy wetness in the Eastern Amazon. *Agricultural and Forest Meteorology*, **2021**, 297, 108250	5.8	6
23	New insights into large tropical tree mass and structure from direct harvest and terrestrial lidar. *Royal Society Open Science*, **2021**, 8, 201458	3.3	5
22	Performance of Laser-Based Electronic Devices for Structural Analysis of Amazonian Terra-Firme Forests. *Remote Sensing*, **2019**, 11, 510	5	4
21	Complex controls on nitrous oxide flux across a large-elevation gradient in the tropical Peruvian Andes. *Biogeosciences*, **2017**, 14, 5077-5097	4.6	4
20	Reply to Adams et al.: Empirical versus process-based approaches to modeling temperature responses of leaf respiration. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E5996-E5997	11.5	4
19	The response of carbon assimilation and storage to long-term drought in tropical trees is dependent on light availability. *Functional Ecology*, **2021**, 35, 43-53	5.6	4
18	A generic pixel-to-point comparison for simulated large-scale ecosystem properties and ground-based observations: an example from the Amazon region. *Geoscientific Model Development*, **2018**, 11, 5203-5215	6.3	4
17	Fluxos de CO2 do solo na floresta nacional de Caxiuan□Par□durante o experimento ESECAFLOR/LBA. *Revista Brasileira De Meteorologia*, **2013**, 28, 85-94	0.4	3

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