Lucy M Rowland

List of Publications by Year
in descending order

49 papers	3,092 citations	185998 28 h-index	197535 49 g-index
51 all docs	51 docs citations	51 times ranked	5150 citing authors

#	Article	IF	Citations
1	Optimal stomatal behaviour around the world. Nature Climate Change, 2015, 5, 459-464.	8.1	397
2	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. New Phytologist, 2015, 206, 614-636.	3.5	350
3	Confronting model predictions of carbon fluxes with measurements of Amazon forests subjected to experimental drought. New Phytologist, 2013, 200, 350-365.	3.5	247
4	Linking hydraulic traits to tropical forest function in a size-structured and trait-driven model (TFSÂv.1-Hydro). Geoscientific Model Development, 2016, 9, 4227-4255.	1.3	211
5	Tropical savannas and dry forests. Current Biology, 2018, 28, R541-R545.	1.8	138
6	Threshold Responses to Soil Moisture Deficit by Trees and Soil in Tropical Rain Forests: Insights from Field Experiments. BioScience, 2015, 65, 882-892.	2.2	109
7	Climate seasonality limits leaf carbon assimilation and wood productivity in tropical forests. Biogeosciences, 2016, 13, 2537-2562.	1.3	108
8	Stomatal optimization based on xylem hydraulics (SOX) improves land surface model simulation of vegetation responses to climate. New Phytologist, 2020, 226, 1622-1637.	3.5	95
9	Leaf economics and plant hydraulics drive leaf : wood area ratios. New Phytologist, 2019, 224, 1544-1556.	3.5	77
10	Tropical forest and peatland conservation in Indonesia: Challenges and directions. People and Nature, 2020, 2, 4-28.	1.7	74
11	When a Tree Dies in the Forest: Scaling Climate-Driven Tree Mortality to Ecosystem Water and Carbon Fluxes. Ecosystems, 2016, 19, 1133-1147.	1.6	73
12	Xylem hydraulic safety and construction costs determine tropical tree growth. Plant, Cell and Environment, 2018, 41, 548-562.	2.8	70
13	Modelling tropical forest responses to drought and El NiÃ±o with a stomatal optimization model based on xylem hydraulics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170315.	1.8	69
14	After more than a decade of soil moisture deficit, tropical rainforest trees maintain photosynthetic capacity, despite increased leaf respiration. Global Change Biology, 2015, 21, 4662-4672.	4.2	67
15	Global transpiration data from sap flow measurements: the SAPFLUXNET database. Earth System Science Data, 2021, 13, 2607-2649.	3.7	65
16	Plasticity in leafâ€level water relations of tropical rainforest trees in response to experimental drought. New Phytologist, 2016, 211, 477-488.	3.5	62
17	Evidence for strong seasonality in the carbon storage and carbon use efficiency of an Amazonian forest. Global Change Biology, 2014, 20, 979-991.	4.2	59
18	Amazonia trees have limited capacity to acclimate plant hydraulic properties in response to longâ€term drought. Global Change Biology, 2020, 26, 3569-3584.	4.2	56

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19	Ecosystem respiration and net primary productivity after 8â€“10 years of experimental through-fall reduction in an eastern Amazon forest. Plant Ecology and Diversity, 2014, 7, 7-24.	1.0	52
20	Biogeographic distributions of neotropical trees reflect their directly measured drought tolerances. Scientific Reports, 2017, 7, 8334.	1.6	51
21	Foliar water uptake in Amazonian trees: Evidence and consequences. Global Change Biology, 2019, 25, 2678-2690.	4.2	45
22	Seasonal trends of Amazonian rainforest phenology, net primary productivity, and carbon allocation. Global Biogeochemical Cycles, 2016, 30, 700-715.	1.9	43
23	ENSO Drives interannual variation of forest woody growth across the tropics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170410.	1.8	41
24	Stand dynamics modulate water cycling and mortality risk in droughted tropical forest. Global Change Biology, 2018, 24, 249-258.	4.2	39
25	The sensitivity of wood production to seasonal and interannual variations in climate in a lowland Amazonian rainforest. Oecologia, 2014, 174, 295-306.	0.9	38
26	Biome Awareness Disparity is BAD for tropical ecosystem conservation and restoration. Journal of Applied Ecology, 2022, 59, 1967-1975.	1.9	38
27	The Pneumatron: An automated pneumatic apparatus for estimating xylem vulnerability to embolism at high temporal resolution. Plant, Cell and Environment, 2020, 43, 131-142.	2.8	33
28	Scaling leaf respiration with nitrogen and phosphorus in tropical forests across two continents. New Phytologist, 2017, 214, 1064-1077.	3.5	30
29	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, 20170311.	1.8	30
30	Limited acclimation in leaf anatomy to experimental drought in tropical rainforest trees. Tree Physiology, 2016, 36, 1550-1561.	1.4	27
31	Drought stress and tree size determine stem <scp>CO</scp>₂ efflux in a tropical forest. New Phytologist, 2018, 218, 1393-1405.	3.5	26
32	Shock and stabilisation following longâ€term drought in tropical forest from 15 years of litterfall dynamics. Journal of Ecology, 2018, 106, 1673-1682.	1.9	26
33	Plant traits controlling growth change in response to a drier climate. New Phytologist, 2021, 229, 1363-1374.	3.5	26
34	The impact of a simple representation of non-structural carbohydrates on the simulated response of tropical forests to drought. Biogeosciences, 2020, 17, 3589-3612.	1.3	24
35	Small tropical forest trees have a greater capacity to adjust carbon metabolism to longâ€term drought than large canopy trees. Plant, Cell and Environment, 2020, 43, 2380-2393.	2.8	22
36	New insights into the variability of the tropical land carbon cycle from the El NiÃ±o of 2015/2016. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170298.	1.8	21

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37	New insights into large tropical tree mass and structure from direct harvest and terrestrial lidar. Royal Society Open Science, 2021, 8, 201458.	1.1	21
38	Hard times for high expectations from hydraulics: predicting droughtâ€induced forest mortality at landscape scales remains a challenge. New Phytologist, 2021, 230, 1685-1687.	3.5	15
39	Improvement of modeling plant responses to low soil moisture in JULESvn4.9 and evaluation against flux tower measurements. Geoscientific Model Development, 2021, 14, 3269-3294.	1.3	15
40	The response of carbon assimilation and storage to longâ€term drought in tropical trees is dependent on light availability. Functional Ecology, 2021, 35, 43-53.	1.7	14
41	Using the Pneumatic method to estimate embolism resistance in species with long vessels: A commentary on the article â€œA comparison of five methods to assess embolism resistance in treesâ€. Forest Ecology and Management, 2021, 479, 118547.	1.4	13
42	Mapping native and non-native vegetation in the Brazilian Cerrado using freely available satellite products. Scientific Reports, 2022, 12, 1588.	1.6	13
43	Plant Structure-Function Relationships and Woody Tissue Respiration: Upscaling to Forests from Laser-Derived Measurements. Advances in Photosynthesis and Respiration, 2017, , 89-105.	1.0	12
44	Differential nutrient limitation and tree height control leaf physiology, supporting niche partitioning in tropical dipterocarp forests. Functional Ecology, 2022, 36, 2084-2103.	1.7	12
45	Divergence of hydraulic traits among tropical forest trees across topographic and vertical environment gradients in Borneo. New Phytologist, 2022, 235, 2183-2198.	3.5	12
46	Inoculum origin and soil legacy can shape plantâ€“soil feedback outcomes for tropical grassland restoration. Restoration Ecology, 2021, 29, e13455.	1.4	9
47	Variation of nonâ€structural carbohydrates across the fastâ€“slow continuum in Amazon Forest canopy trees. Functional Ecology, 2022, 36, 341-355.	1.7	9
48	Editorial special issue: plant-soil interactions in the Amazon rainforest. Plant and Soil, 2020, 450, 1-9.	1.8	4
49	Abandoned pastures and restored savannas have distinct patterns of plantâ€“soil feedback and nutrient cycling compared with native Brazilian savannas. Journal of Applied Ecology, 2022, 59, 1863-1873.	1.9	2