Maurizio Mencuccini

List of Publications by Year
in descending order

201 papers	19,905 citations	14655 66 h-index	12272 133 g-index
228 all docs	228 docs citations	228 times ranked	16910 citing authors

#	Article	IF	Citations
1	Global convergence in the vulnerability of forests to drought. Nature, 2012, 491, 752-755.	27.8	1,944
2	Improved allometric models to estimate the aboveground biomass of tropical trees. Global Change Biology, 2014, 20, 3177-3190.	9.5	1,712
3	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	9.5	1,038
4	The human footprint in the carbon cycle of temperate and boreal forests. Nature, 2007, 447, 849-851.	27.8	868
5	A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. Nature Ecology and Evolution, 2017, 1, 1285-1291.	7.8	739
6	Death from drought in tropical forests is triggered by hydraulics not carbon starvation. Nature, 2015, 528, 119-122.	27.8	482
7	Weak tradeoff between xylem safety and xylemâ€specific hydraulic efficiency across the world's woody plant species. New Phytologist, 2016, 209, 123-136.	7.3	466
8	A new look at water transport regulation in plants. New Phytologist, 2014, 204, 105-115.	7.3	404
9	Global traitâ€“environment relationships of plant communities. Nature Ecology and Evolution, 2018, 2, 1906-1917.	7.8	397
10	Drivers and mechanisms of tree mortality in moist tropical forests. New Phytologist, 2018, 219, 851-869.	7.3	341
11	Evaluating theories of droughtâ€induced vegetation mortality using a multimodelâ€“experiment framework. New Phytologist, 2013, 200, 304-321.	7.3	340
12	Hydraulic adjustment of Scots pine across Europe. New Phytologist, 2009, 184, 353-364.	7.3	337
13	Sizeâ€mediated ageing reduces vigour in trees. Ecology Letters, 2005, 8, 1183-1190.	6.4	312
14	On simplifying allometric analyses of forest biomass. Forest Ecology and Management, 2004, 187, 311-332.	3.2	300
15	The ecological significance of long-distance water transport: short-term regulation, long-term acclimation and the hydraulic costs of stature across plant life forms. Plant, Cell and Environment, 2003, 26, 163-182.	5.7	296
16	Climate influences the leaf area/sapwood area ratio in Scots pine. Tree Physiology, 1995, 15, 1-10.	3.1	282
17	Predicting stomatal responses to the environment from the optimization of photosynthetic gain and hydraulic cost. Plant, Cell and Environment, 2017, 40, 816-830.	5.7	276
18	Ageâ€related decline in stand productivity: the role of structural acclimation under hydraulic constraints. Plant, Cell and Environment, 2000, 23, 251-263.	5.7	232

#	Article	IF	Citations
19	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.	3.6	211
20	Linking phloem function to structure: Analysis with a coupled xylemâ€“phloem transport model. Journal of Theoretical Biology, 2009, 259, 325-337.	1.7	207
21	The relevance of xylem network structure for plant hydraulic efficiency and safety. Journal of Theoretical Biology, 2007, 247, 788-803.	1.7	205
22	sPlot â€“ A new tool for global vegetation analyses. Journal of Vegetation Science, 2019, 30, 161-186.	2.2	185
23	Adjustments and coordination of hydraulic, leaf and stem traits along a water availability gradient. New Phytologist, 2019, 223, 632-646.	7.3	184
24	The significance of phloem transport for the speed with which canopy photosynthesis and belowground respiration are linked. New Phytologist, 2010, 185, 189-203.	7.3	181
25	Allocation, stress tolerance and carbon transport in plants: how does phloem physiology affect plant ecology?. Plant, Cell and Environment, 2016, 39, 709-725.	5.7	164
26	Mechanisms of woody-plant mortality under rising drought, CO2 and vapour pressure deficit. Nature Reviews Earth & Environment, 2022, 3, 294-308.	29.7	163
27	Hydraulic conductance, light interception and needle nutrient concentration in Scots pine stands and their relations with net primary productivity. Tree Physiology, 1996, 16, 459-468.	3.1	153
28	Droughtâ€induced defoliation and long periods of nearâ€zero gas exchange play a key role in accentuating metabolic decline of Scots pine. New Phytologist, 2013, 200, 388-401.	7.3	140
29	Biomechanical and hydraulic determinants of tree structure in Scots pine: anatomical characteristics. Tree Physiology, 1997, 17, 105-113.	3.1	139
30	Modelling water fluxes in plants: from tissues to biosphere. New Phytologist, 2019, 222, 1207-1222.	7.3	138
31	Paired comparisons of carbon exchange between undisturbed and regenerating stands in four managed forests in Europe. Global Change Biology, 2004, 10, 1707-1723.	9.5	135
32	Coordination of physiological traits involved in droughtâ€induced mortality of woody plants. New Phytologist, 2015, 208, 396-409.	7.3	123
33	Control of stomatal conductance by leaf water potential in Hymenoclea salsola (T. & G.), a desert subshrub. Plant, Cell and Environment, 1998, 21, 1029-1038.	5.7	122
34	Capacitive effect of cavitation in xylem conduits: results from a dynamic model. Plant, Cell and Environment, 2009, 32, 10-21.	5.7	115
35	Tree height and age-related decline in growth in Scots pine (Pinus sylvestris L.). Oecologia, 2006, 150, 529-544.	2.0	114
36	Droughtâ€related tree mortality: addressing the gaps in understanding and prediction. New Phytologist, 2015, 207, 28-33.	7.3	111

#	Article	IF	Citations
37	Hydraulic functioning of tree stemsâ€"fusing ray anatomy, radial transfer and capacitance. Tree Physiology, 2015, 35, 706-722.	3.1	110
38	Tree size and climatic water deficit control root to shoot ratio in individual trees globally. New Phytologist, 2018, 217, 8-11.	7.3	108
39	Developmental patterns of above-ground hydraulic conductance in a Scots pine (Pinus sylvestris L.) age sequence. Plant, Cell and Environment, 1996, 19, 939-948.	5.7	107
40	Xylem vulnerability to cavitation varies among poplar and willow clones and correlates with yield. Tree Physiology, 2007, 27, 1761-1767.	3.1	106
41	Plasticity in hydraulic architecture of Scots pine across Eurasia. Oecologia, 2007, 153, 245-259.	2.0	98
42	Below-ground root yield and distribution in natural and replanted mangrove forests at Gazi bay, Kenya. Forest Ecology and Management, 2008, 256, 1290-1297.	3.2	97
43	New Insights into the Mechanisms of Water-Stress-Induced Cavitation in Conifers. Plant Physiology, 2009, 151, 949-954.	4.8	97
44	Stomatal optimization based on xylem hydraulics (SOX) improves land surface model simulation of vegetation responses to climate. New Phytologist, 2020, 226, 1622-1637.	7.3	95
45	Leaf/sapwood area ratios in Scots pine show acclimation across Europe. Canadian Journal of Forest Research, 2001, 31, 442-456.	1.7	94
46	Changes in tree resistance, recovery and resilience across three successive extreme droughts in the northeast Iberian Peninsula. Oecologia, 2018, 187, 343-354.	2.0	94
47	Hydraulic constraints in the functional scaling of trees. Tree Physiology, 2002, 22, 553-565.	3.1	93
48	Sanioâ€™s laws revisited. Sizeâ€dependent changes in the xylem architecture of trees. Ecology Letters, 2007, 10, 1084-1093.	6.4	92
49	Interspecific variation in functional traits, not climatic differences among species ranges, determines demographic rates across 44 temperate and Mediterranean tree species. Journal of Ecology, 2010, 98, 1462-1475.	4.0	92
50	Concurrent measurements of change in the bark and xylem diameters of trees reveal a phloemâ€generated turgor signal. New Phytologist, 2013, 198, 1143-1154.	7.3	92
51	Intra- and interspecific facilitation in mangroves may increase resilience to climate change threats. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 2127-2135.	4.0	90
52	Vulnerability to cavitation in populations of two desert species,Hymenoclea salsolaandAmbrosia dumosa, from different climatic regions. Journal of Experimental Botany, 1997, 48, 1323-1334.	4.8	89
53	Thirty years of seed production in a subalpine Norway spruce forest: Patterns of temporal and spatial variation. Forest Ecology and Management, 1995, 76, 109-125.	3.2	86
54	SAPFLUXNET: towards a global database of sap flow measurements. Tree Physiology, 2016, 36, 1449-1455.	3.1	86

#	Article	IF	Citations
55	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.	5.7	86
56	Assessing the effects of nitrogen deposition and climate on carbon isotope discrimination and intrinsic waterâ€use efficiency of angiosperm and conifer trees under rising <scp>CO</scp>₂ conditions. Global Change Biology, 2012, 18, 2925-2944.	9.5	82
57	Tapering of xylem conduits and hydraulic limitations in sycamore (<i>Acer pseudoplatanus</i>) trees. New Phytologist, 2008, 177, 653-664.	7.3	81
58	Balancing the risks of hydraulic failure and carbon starvation: a twig scale analysis in declining <scp>S</scp>cots pine. Plant, Cell and Environment, 2015, 38, 2575-2588.	5.7	79
59	Separating waterâ€potential induced swelling and shrinking from measured radial stem variations reveals a cambial growth and osmotic concentration signal. Plant, Cell and Environment, 2016, 39, 233-244.	5.7	79
60	Aboveground biomass relationships for beech (Fagus moesiaca Cz.) trees in Vermio Mountain, Northern Greece, and generalised equations for Fagus sp.. Annals of Forest Science, 2003, 60, 439-448.	2.0	78
61	Sensitivity and uncertainty analysis from a coupled 3-PG and soil organic matter decomposition model. Ecological Modelling, 2008, 219, 1-16.	2.5	78
62	Rapid Losses of Surface Elevation following Tree Girdling and Cutting in Tropical Mangroves. PLoS ONE, 2014, 9, e107868.	2.5	78
63	Short-term effects of clearfelling on soil CO2, CH4, and N2O fluxes in a Sitka spruce plantation. Soil Biology and Biochemistry, 2005, 37, 2025-2036.	8.8	77
64	Leaf economics and plant hydraulics drive leaf : wood area ratios. New Phytologist, 2019, 224, 1544-1556.	7.3	77
65	The impact of soil microorganisms on the global budget of Î´ ¹⁸ O in atmospheric CO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22411-22415.	7.1	74
66	Detecting forest response to droughts with global observations of vegetation water content. Global Change Biology, 2021, 27, 6005-6024.	9.5	73
67	Evidence for age- and size-mediated controls of tree growth from grafting studies. Tree Physiology, 2007, 27, 463-473.	3.1	70
68	Sap flow as a key trait in the understanding of plant hydraulic functioning. Tree Physiology, 2015, 35, 341-345.	3.1	70
69	Xylem hydraulic safety and construction costs determine tropical tree growth. Plant, Cell and Environment, 2018, 41, 548-562.	5.7	70
70	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.	4.0	69
71	The Cohesionâ€Tension Theory. New Phytologist, 2004, 163, 451-452.	7.3	68
72	Stomatal responsiveness to leaf water status in common bean (Phaseolus vulgaris L.) is a function of time of day. Plant, Cell and Environment, 2000, 23, 1109-1118.	5.7	67

#	Article	IF	Citations
73	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.	9.5	67
74	The legacy of enhanced N and S deposition as revealed by the combined analysis of Î´13C, Î´18O and Î´15N in tree rings. Global Change Biology, 2011, 17, 1946-1962.	9.5	66
75	The 2018 European heatwave led to stem dehydration but not to consistent growth reductions in forests. Nature Communications, 2022, 13, 28.	12.8	66
76	Global transpiration data from sap flow measurements: the SAPFLUXNET database. Earth System Science Data, 2021, 13, 2607-2649.	9.9	65
77	Isotopic evidence for the occurrence of biological nitrification and nitrogen deposition processing in forest canopies. Global Change Biology, 2015, 21, 4613-4626.	9.5	63
78	Decomposition of mangrove roots: Effects of location, nutrients, species identity and mix in a Kenyan forest. Estuarine, Coastal and Shelf Science, 2010, 88, 135-142.	2.1	62
79	Plasticity in leafâ€level water relations of tropical rainforest trees in response to experimental drought. New Phytologist, 2016, 211, 477-488.	7.3	62
80	The effects of sap ionic composition on xylem vulnerability to cavitation. Journal of Experimental Botany, 2010, 61, 275-285.	4.8	59
81	The relationship between carbon dioxide uptake and canopy colour from two camera systems in a deciduous forest in southern <scp>E</scp>ngland. Functional Ecology, 2013, 27, 196-207.	3.6	59
82	Non-structural carbohydrates mediate seasonal water stress across Amazon forests. Nature Communications, 2021, 12, 2310.	12.8	59
83	Adaptation and coordinated evolution of plant hydraulic traits. Ecology Letters, 2020, 23, 1599-1610.	6.4	58
84	Plant size, not age, regulates growth and gas exchange in grafted Scots pine trees. Tree Physiology, 2007, 27, 71-79.	3.1	57
85	Amazonia trees have limited capacity to acclimate plant hydraulic properties in response to longâ€term drought. Global Change Biology, 2020, 26, 3569-3584.	9.5	56
86	Climate and functional traits jointly mediate tree waterâ€use strategies. New Phytologist, 2021, 231, 617-630.	7.3	53
87	Soil carbon dynamics in a Sitka spruce (Picea sitchensis (Bong.) Carr.) chronosequence on a peaty gley. Forest Ecology and Management, 2005, 205, 227-240.	3.2	52
88	Spatial distribution and packing of xylem conduits. American Journal of Botany, 2012, 99, 1189-1196.	1.7	52
89	Understanding trait interactions and their impacts on growth in Scots pine branches across Europe. Functional Ecology, 2012, 26, 541-549.	3.6	52
90	Determinants of legacy effects in pine trees â€" implications from an irrigationâ€stop experiment. New Phytologist, 2020, 227, 1081-1096.	7.3	52

#	Article	IF	Citations
91	Manipulative experiments demonstrate how long-term soil moisture changes alter controls of plant water use. Environmental and Experimental Botany, 2018, 152, 19-27.	4.2	49
92	Evaporation and carbonic anhydrase activity recorded in oxygen isotope signatures of net CO₂ fluxes from a Mediterranean soil. Global Change Biology, 2008, 14, 2178-2193.	9.5	48
93	The potential for Eucalyptus as a wood fuel in the UK. Applied Energy, 2012, 89, 176-182.	10.1	47
94	Does canopy nitrogen uptake enhance carbon sequestration by trees?. Global Change Biology, 2016, 22, 875-888.	9.5	45
95	Foliar water uptake in Amazonian trees: Evidence and consequences. Global Change Biology, 2019, 25, 2678-2690.	9.5	45
96	Species mixing boosts root yield in mangrove trees. Oecologia, 2013, 172, 271-278.	2.0	42
97	Assimilation of repeated woody biomass observations constrains decadal ecosystem carbon cycle uncertainty in aggrading forests. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 528-545.	3.0	41
98	Life after recovery: Increased resolution of forest resilience assessment sheds new light on postâ€drought compensatory growth and recovery dynamics. Journal of Ecology, 2021, 109, 3157-3170.	4.0	41
99	A carbon costâ€“gain model explains the observed patterns of xylem safety and efficiency. Plant, Cell and Environment, 2011, 34, 1819-1834.	5.7	40
100	Carbon stock and stock changes across a Sitka spruce chronosequence on surface-water gley soils. Forestry, 2009, 82, 255-272.	2.3	39
101	Stand dynamics modulate water cycling and mortality risk in droughted tropical forest. Global Change Biology, 2018, 24, 249-258.	9.5	39
102	Propagating uncertainty to estimates of above-ground biomass for Kenyan mangroves: A scaling procedure from tree to landscape level. Forest Ecology and Management, 2013, 310, 968-982.	3.2	38
103	Evaporative demand determines branchiness of Scots pine. Oecologia, 1995, 102, 164-168.	2.0	37
104	Long-term temporal relationships between environmental conditions and xylem functional traits: a meta-analysis across a range of woody species along climatic and nitrogen deposition gradients. Tree Physiology, 2017, 37, 4-17.	3.1	37
105	Field measurements of ultrasonic acoustic emissions and stem diameter variations. New insight into the relationship between xylem tensions and embolism. Tree Physiology, 2005, 25, 237-243.	3.1	36
106	Plumbing the depths: extracellular water storage in specialized leaf structures and its functional expression in a threeâ€domain pressureâ€‰â€“volume relationship. Plant, Cell and Environment, 2017, 40, 1021-1038.	5.7	35
107	Rainforest trees respond to drought by modifying their hydraulic architecture. Ecology and Evolution, 2018, 8, 12479-12491.	1.9	34
108	Temperature and masting control Norway spruce growth, but with high individual tree variability. Forest Ecology and Management, 2019, 438, 142-150.	3.2	34

#	Article	IF	Citations
109	Wood density and hydraulic traits influence speciesâ€™ growth response to drought across biomes. Global Change Biology, 2022, 28, 3871-3882.	9.5	34
110	Water table salinity, rainfall and water use by umbrella pine trees (Pinus pinea L.). Plant Ecology, 2004, 171, 23-33.	1.6	33
111	A noninvasive optical system for the measurement of xylem and phloem sap flow in woody plants of small stem size. Tree Physiology, 2007, 27, 169-179.	3.1	31
112	Morphological and physiological responses to drought stress of European provenances of Scots pine. European Journal of Forest Research, 2017, 136, 91-104.	2.5	31
113	Physiological and Biochemical Processes Related to Ageing and Senescence in Plants. , 2017, , 257-283.		30
114	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.	4.0	30
115	Unravelling the effect of species mixing on water use and drought stress in Mediterranean forests: A modelling approach. Agricultural and Forest Meteorology, 2021, 296, 108233.	4.8	30
116	Harvesting water from unsaturated atmospheres: deliquescence of salt secreted onto leaf surfaces drives reverse sap flow in a dominant arid climate mangrove, <i>Avicennia marina</i>. New Phytologist, 2021, 231, 1401-1414.	7.3	30
117	Belowâ€ground hydraulic conductance is a function of environmental conditions and tree size in Scots pine. Functional Ecology, 2007, 21, 1072-1083.	3.6	28
118	Age- and size-related changes in physiological characteristics and chemical composition of Acer pseudoplatanus and Fraxinus excelsior trees. Tree Physiology, 2008, 29, 27-38.	3.1	28
119	The comparison of several colour indices for the photographic recording of canopy phenology of<i>Fagus crenata</i>Blume in eastern Japan. Plant Ecology and Diversity, 2011, 4, 67-77.	2.4	28
120	No signs of meristem senescence in old <scp>S</scp>cots pine. Journal of Ecology, 2014, 102, 555-565.	4.0	27
121	Limited acclimation in leaf anatomy to experimental drought in tropical rainforest trees. Tree Physiology, 2016, 36, 1550-1561.	3.1	27
122	Direct observation and modelling of embolism spread between xylem conduits: a case study in Scots pine. Plant, Cell and Environment, 2016, 39, 2774-2785.	5.7	27
123	Variability in hydraulic architecture and gas exchange of common bean (Phaseolus vulgaris) cultivars under well-watered conditions: interactions with leaf size. Functional Plant Biology, 1999, 26, 115.	2.1	27
124	Aboveground net primary productivity of a beech (Fagus moesiaca) forest: a case study of Naousa forest, northern Greece. Tree Physiology, 2005, 25, 713-722.	3.1	26
125	Drought stress and tree size determine stem <scp>CO</scp>₂ efflux in a tropical forest. New Phytologist, 2018, 218, 1393-1405.	7.3	26
126	Shock and stabilisation following longâ€term drought in tropical forest from 15 years of litterfall dynamics. Journal of Ecology, 2018, 106, 1673-1682.	4.0	26

#	Article	IF	Citations
127	Equivalence of foliar water uptake and stomatal conductance?. Plant, Cell and Environment, 2020, 43, 524-528.	5.7	26
128	Plant traits controlling growth change in response to a drier climate. New Phytologist, 2021, 229, 1363-1374.	7.3	26
129	Anthropogenic NOx emissions alter the intrinsic water-use efficiency (WUEi) for Quercus cerris stands under Mediterranean climate conditions. Environmental Pollution, 2010, 158, 2841-2847.	7.5	24
130	The impact of a simple representation of non-structural carbohydrates on the simulated response of tropical forests to drought. Biogeosciences, 2020, 17, 3589-3612.	3.3	24
131	Plump trees win under drought. Nature Climate Change, 2014, 4, 666-667.	18.8	23
132	The effects of site preparation practices on carbon dioxide, methane and nitrous oxide fluxes from a peaty gley soil. Forestry, 2012, 85, 1-15.	2.3	22
133	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.	5.7	22
134	Carbon stock changes in a peaty gley soil profile after afforestation with Sitka spruce (Picea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 T	2.0	21
135	A quantitative and statistically robust method for the determination of xylem conduit spatial distribution. American Journal of Botany, 2010, 97, 1247-1259.	1.7	21
136	Sensitivity of colour indices for discriminating leaf colours from digital photographs. Methods in Ecology and Evolution, 2014, 5, 1078-1085.	5.2	21
137	Magnani et al. reply. Nature, 2008, 451, E3-E4.	27.8	20
138	Biotic and abiotic factors affecting the Î´13C of soil respired CO2in a Mediterranean oak woodlandâ€. Isotopes in Environmental and Health Studies, 2009, 45, 343-359.	1.0	20
139	Exceptionally high mangrove root production rates in the Kelantan Delta, Malaysia; An experimental and comparative study. Forest Ecology and Management, 2019, 444, 214-224.	3.2	20
140	Partitioning between atmospheric deposition and canopy microbial nitrification into throughfall nitrate fluxes in a Mediterranean forest. Journal of Ecology, 2020, 108, 626-640.	4.0	20
141	Development and recovery from winter embolism in silver birch: seasonal patterns and relationships with the phenological cycle in oceanic Scotland. Tree Physiology, 2003, 23, 663-673.	3.1	19
142	Temporal scales for the coordination of tree carbon and water economies during droughts. Tree Physiology, 2014, 34, 439-442.	3.1	19
143	Towards a statistically robust determination of minimum water potential and hydraulic risk in plants. New Phytologist, 2021, 232, 404-417.	7.3	19
144	Comparative Criteria for Models of the Vascular Transport Systems of Tall Trees. Tree Physiology, 2011, , 309-339.	2.5	19

#	Article	IF	Citations
145	Calibration and validation of a simplified process-based model for the prediction of the carbon balance of Scottish Sitka spruce (Picea sitchensis) plantations. Canadian Journal of Forest Research, 2010, 40, 2411-2426.	1.7	18
146	Climate and atmospheric deposition effects on forest water-use efficiency and nitrogen availability across Britain. Scientific Reports, 2020, 10, 12418.	3.3	18
147	High exposure of global tree diversity to human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	18
148	Shifting access to pools of shoot water sustains gas exchange and increases stem hydraulic safety during seasonal atmospheric drought. Plant, Cell and Environment, 2021, 44, 2898-2911.	5.7	17
149	Stand and coarse woody debris dynamics in subalpine Norway spruce forests withdrawn from regular management. Annals of Forest Science, 2010, 67, 803-803.	2.0	16
150	The regulation of sapwood area, water transport and heartwood formation in Sitka spruce. Plant Ecology and Diversity, 2013, 6, 45-56.	2.4	16
151	Are leaf, stem and hydraulic traits good predictors of individual tree growth?. Functional Ecology, 2021, 35, 2435-2447.	3.6	16
152	The Anatomy and Functioning of the Xylem in Oaks. Tree Physiology, 2017, , 261-302.	2.5	15
153	Canopy wetness in the Eastern Amazon. Agricultural and Forest Meteorology, 2021, 297, 108250.	4.8	15
154	Hard times for high expectations from hydraulics: predicting droughtâ€induced forest mortality at landscape scales remains a challenge. New Phytologist, 2021, 230, 1685-1687.	7.3	15
155	Modelling understorey light for seedling regeneration in continuous cover forestry canopies. Forestry, 2011, 84, 397-409.	2.3	14
156	Effects of climate and site characteristics on Scots pine growth. European Journal of Forest Research, 2012, 131, 427-439.	2.5	14
157	Effects of Long-Term Nitrogen Addition and Atmospheric Nitrogen Deposition on Carbon Accumulation in Picea sitchensis Plantations. Ecosystems, 2013, 16, 1310-1324.	3.4	14
158	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.	3.6	14
159	Effects of site preparation for afforestation on methane fluxes at Harwood Forest, NE England. Biogeochemistry, 2010, 97, 89-107.	3.5	13
160	The Application of Leaf Ultrasonic Resonance to Vitis vinifera L. Suggests the Existence of a Diurnal Osmotic Adjustment Subjected to Photosynthesis. Frontiers in Plant Science, 2016, 7, 1601.	3.6	13
161	Gap-filling aÂspatially explicit plant trait database: comparing imputation methods and different levels of environmental information. Biogeosciences, 2018, 15, 2601-2617.	3.3	13
162	A review of the suitability of eucalypts for short rotation forestry for energy in the UK. New Forests, 2020, 51, 1-19.	1.7	13

#	Article	IF	Citations
163	Transpiration from subarctic deciduous woodlands: Environmental controls and contribution to ecosystem evapotranspiration. Ecohydrology, 2020, 13, e2190.	2.4	12
164	On light bulbs and marbles. Transfer times and teleconnections in plant fluid transport systems. New Phytologist, 2010, 187, 888-891.	7.3	11
165	Tall, leafy conifers lose out. Nature Climate Change, 2015, 5, 625-626.	18.8	11
166	Dwarf trees, superâ€sized shrubs and scaling: why is plant stature so important?. Plant, Cell and Environment, 2015, 38, 1-3.	5.7	11
167	Leaf/sapwood area ratios in Scots pine show acclimation across Europe. Canadian Journal of Forest Research, 2001, 31, 442-456.	1.7	11
168	Drought-induced mortality in Scots pine: opening the metabolic black box. Tree Physiology, 2019, 39, 1358-1370.	3.1	10
169	Bioclimatic distance and performance of apical shoot extension: Disentangling the role of growth rate and duration in ecotypic differentiation. Forest Ecology and Management, 2020, 477, 118483.	3.2	10
170	Disentangling biology from mathematical necessity in twentieth-century gymnosperm resilience trends. Nature Ecology and Evolution, 2021, 5, 733-735.	7.8	10
171	Effects of species richness, identity and environmental variables on growth in planted mangroves in Kenya. Marine Ecology - Progress Series, 2012, 465, 1-10.	1.9	9
172	Variation of nonâ€structural carbohydrates across the fastâ€“slow continuum in Amazon Forest canopy trees. Functional Ecology, 2022, 36, 341-355.	3.6	9
173	Forest canopy nitrogen uptake can supply entire foliar demand. Functional Ecology, 2022, 36, 933-949.	3.6	9
174	Vapour pressure deficit is the main driver of tree canopy conductance across biomes. Agricultural and Forest Meteorology, 2022, 322, 109029.	4.8	9
175	A comparison of models for quantifying growth and standing carbon in UK Scots pine forests. IForest, 2015, 8, 596-605.	1.4	8
176	Stem injection of 15N-NH4NO3 into mature Sitka spruce (Picea sitchensis). Tree Physiology, 2014, 34, 1130-1140.	3.1	7
177	Small understorey trees have greater capacity than canopy trees to adjust hydraulic traits following prolonged experimental drought in a tropical forest. Tree Physiology, 2022, 42, 537-556.	3.1	7
178	A resource capture efficiency index to compare differences in early growth of four tree species in northern England. IForest, 2017, 10, 397-405.	1.4	7
179	Production of Seeds and Cones and Consequences for Wood Radial Increment in Norway Spruce (Picea Abies (L.) Karst.). Giornale Botanico Italiano (Florence, Italy: 1962), 1995, 129, 797-812.	0.0	6
180	Ecophysiological Aspects of Phloem Transport in Trees. Plant Ecophysiology, 2014, , 25-36.	1.5	6

#	Article	IF	Citations
181	Decomposition nitrogen is better retained than simulated deposition from mineral amendments in a temperate forest. Global Change Biology, 2017, 23, 1711-1724.	9.5	6
182	Preliminary growth functions for Eucalyptus gunnii in the UK. Biomass and Bioenergy, 2018, 108, 464-469.	5.7	6
183	Estimating carbon avoided from the implementation of reduced-impact logging in Sabah, Malaysia. International Forestry Review, 2018, 20, 58-78.	0.6	6
184	Forest system hydraulic conductance: partitioning tree and soil components. New Phytologist, 2022, 233, 1667-1681.	7.3	6
185	Green spruce aphid infestations cause larger growth reductions to Sitka spruce under shade. Tree Physiology, 2010, 30, 1403-1414.	3.1	5
186	Managing forests for ecosystem services - can spruce forests show the way?. Forestry, 2014, 87, 189-191.	2.3	5
187	Age and Size Related Changes in Growth of Acer pseudoplatanus and Fraxinus excelsior Species. American Journal of Plant Physiology, 2008, 3, 137-153.	0.2	5
188	Frost damage to eucalypts in a short-rotation forestry trial in Cumbria (England). IForest, 2014, 7, 156-161.	1.4	4
189	Bayesian calibration and Bayesian model comparison of a stand level dynamic growth model for Sitka spruce and Scots pine. Forestry, 2015, 88, 326-335.	2.3	4
190	Seasonal controls on net branch CO2 assimilation in sub-Arctic Mountain Birch (Betula pubescens) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	4.8	3
191	Respiration in wood: integrating across tissues, functions and scales. New Phytologist, 2020, 225, 1824-1827.	7.3	3
192	Using the SAPFLUXNET database to understand transpiration regulation of trees and forests. Acta Horticulturae, 2020, , 179-186.	0.2	3
193	Comparison of xylem flow velocities determined by MRI and a non-invasive heat pulse technique in Golden Alder and Silver Birch. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2007, 146, S65-S66.	1.8	2
194	The utility of optical remote sensing for characterizing changes in the photosynthetic efficiency of Norway maple saplings following transplantation. International Journal of Remote Sensing, 2013, 34, 655-667.	2.9	2
195	Threshold Response to Extreme Drought Shifts Inter-Tree Growth Dominance in Pinus sylvestris. Frontiers in Forests and Global Change, 2021, 4, .	2.3	2
196	THE DISTRIBUTION OF RESISTANCES ALONG THE HYDRAULIC PATHWAY IS CONTROLLED BY THE TAPERING OF XYLEM CONDUITS. Acta Horticulturae, 2009, , 237-242.	0.2	1
197	Paul Jarvis, FRS, FRSE: plant ecologist who showed the link between forests and the atmosphere. IForest, 2013, 6, 100-101.	1.4	1
198	WATER RELATIONS OF PLANTS | Xylem. , 2003, , 1440-1449.		0

#	Article	IF	Citations
199	â€˜Forests, instruments and ideasâ€™ â€“ a tribute to John Grace's career. Plant Ecology and Diversity, 2013, 6, 3-6.	2.4	0
200	Xylem. , 2017, , 141-148.		0
201	Thoughts on forest science.. , 2004, , 269-278.		0