Tamir Klein

List of Publications by Year in descending order

75 papers	6,625 citations	126907 33 h-index	82547 72 g-index
81 all docs	81 docs citations	81 times ranked	8959 citing authors

#	Article	IF	Citations
1	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	9.5	1,038
2	Meta-analysis reveals that hydraulic traits explain cross-species patterns of drought-induced tree mortality across the globe. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5024-5029.	7.1	554
3	The variability of stomatal sensitivity to leaf water potential across tree species indicates a continuum between isohydric and anisohydric behaviours. Functional Ecology, 2014, 28, 1313-1320.	3.6	544
4	A synthesis of radial growth patterns preceding tree mortality. Global Change Biology, 2017, 23, 1675-1690.	9.5	394
5	A plant's perspective of extremes: terrestrial plant responses to changing climatic variability. Global Change Biology, 2013, 19, 75-89.	9.5	393
6	The correlations and sequence of plant stomatal, hydraulic, and wilting responses to drought. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13098-13103.	7.1	362
7	Low growth resilience to drought is related to future mortality risk in trees. Nature Communications, 2020, 11, 545.	12.8	228
8	Belowground carbon trade among tall trees in a temperate forest. Science, 2016, 352, 342-344.	12.6	182
9	Global field observations of tree die-off reveal hotter-drought fingerprint for Earthâ€™s forests. Nature Communications, 2022, 13, 1761.	12.8	171
10	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
11	Mechanisms of woody-plant mortality under rising drought, CO2 and vapour pressure deficit. Nature Reviews Earth & Environment, 2022, 3, 294-308.	29.7	163
12	Hydraulic adjustments underlying drought resistance of Pinus halepensis. Tree Physiology, 2011, 31, 637-648.	3.1	136
13	Drought stress, growth and nonstructural carbohydrate dynamics of pine trees in a semi-arid forest. Tree Physiology, 2014, 34, 981-992.	3.1	136
14	Early-Warning Signals of Individual Tree Mortality Based on Annual Radial Growth. Frontiers in Plant Science, 2018, 9, 1964.	3.6	117
15	Xylem embolism refilling and resilience against droughtâ€induced mortality in woody plants: processes and tradeâ€offs. Ecological Research, 2018, 33, 839-855.	1.5	116
16	Relationships between stomatal regulation, water-use, and water-use efficiency of two coexisting key Mediterranean tree species. Forest Ecology and Management, 2013, 302, 34-42.	3.2	105
17	Differential ecophysiological response of a major Mediterranean pine species across a climatic gradient. Tree Physiology, 2013, 33, 26-36.	3.1	102
18	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

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19	Association between tree-ring and needle Î´13C and leaf gas exchange in Pinus halepensis under semi-arid conditions. Oecologia, 2005, 144, 45-54.	2.0	91
20	Water availability predicts forest canopy height at the globalÂscale. Ecology Letters, 2015, 18, 1311-1320.	6.4	87
21	Tree carbon allocation dynamics determined using a carbon mass balance approach. New Phytologist, 2015, 205, 147-159.	7.3	82
22	Towards an advanced assessment of the hydrological vulnerability of forests to climate changeâ€induced drought. New Phytologist, 2014, 201, 712-716.	7.3	76
23	Coordination between growth, phenology and carbon storage in three coexisting deciduous tree species in a temperate forest. Tree Physiology, 2016, 36, 847-855.	3.1	76
24	Resilience to seasonal heat wave episodes in a Mediterranean pine forest. New Phytologist, 2016, 210, 485-496.	7.3	74
25	Quantifying transpirable soil water and its relations to tree water use dynamics in a waterâ€limited pine forest. Ecohydrology, 2014, 7, 409-419.	2.4	69
26	Growth and carbon relations of mature Picea abies trees under 5Âyears of freeâ€air CO₂ enrichment. Journal of Ecology, 2016, 104, 1720-1733.	4.0	68
27	Ecosystem dynamics and management after forest dieâ€off: a global synthesis with conceptual stateâ€andâ€transition models. Ecosphere, 2017, 8, e02034.	2.2	56
28	Stand density effects on carbon and water fluxes in a semi-arid forest, from leaf to stand-scale. Forest Ecology and Management, 2019, 453, 117573.	3.2	50
29	Mortality versus survival in droughtâ€affected Aleppo pine forest depends on the extent of rock cover and soil stoniness. Functional Ecology, 2019, 33, 901-912.	3.6	48
30	Knockdown of the <scp>A</scp>rabidopsis thaliana chloroplast protein disulfide isomerase 6 results in reduced levels of photoinhibition and increased <scp>D</scp>1 synthesis in high light. Plant Journal, 2014, 78, 1003-1013.	5.7	45
31	Use of thermal imaging to detect evaporative cooling in coniferous and broadleaved tree species of the Mediterranean maquis. Agricultural and Forest Meteorology, 2019, 271, 285-294.	4.8	42
32	Share the wealth: Trees with greater ectomycorrhizal species overlap share more carbon. Molecular Ecology, 2020, 29, 2321-2333.	3.9	42
33	A nation-wide analysis of tree mortality under climate change: Forest loss and its causes in Israel 1948â€“2017. Forest Ecology and Management, 2019, 432, 840-849.	3.2	41
34	Meta-analysis Reveals Different Competition Effects on Tree Growth Resistance and Resilience to Drought. Ecosystems, 2022, 25, 30-43.	3.4	40
35	Ecotypic variation and stability in growth performance of the thermophilic conifer Pinus halepensis across the Mediterranean basin. Forest Ecology and Management, 2018, 424, 205-215.	3.2	37
36	Climate change drives tree mortality. Science, 2018, 362, 758-758.	12.6	35

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37	A vast increase in heat exposure in the 21st century is driven by global warming and urban population growth. Sustainable Cities and Society, 2021, 73, 103098.	10.4	35
38	Diurnal dynamics of water transport, storage and hydraulic conductivity in pine trees under seasonal drought. IForest, 2016, 9, 710-719.	1.4	35
39	Elevated CO2 compensates for drought effects in lemon saplings via stomatal downregulation, increased soil moisture, and increased wood carbon storage. Environmental and Experimental Botany, 2018, 148, 117-127.	4.2	33
40	Drought-induced tree mortality: from discrete observations to comprehensive research. Tree Physiology, 2015, 35, 225-228.	3.1	32
41	Stomatal sensitivity to CO₂ diverges between angiosperm and gymnosperm tree species. Functional Ecology, 2019, 33, 1411-1424.	3.6	31
42	Association between sap flowâ€derived and eddy covarianceâ€derived measurements of forest canopy <scp>CO</scp>₂ uptake. New Phytologist, 2016, 209, 436-446.	7.3	29
43	Enhanced root exudation of mature broadleaf and conifer trees in a Mediterranean forest during the dry season. Tree Physiology, 2020, 40, 1595-1605.	3.1	26
44	Rapid starch degradation in the wood of olive trees under heat and drought is permitted by three stressâ€specific beta amylases. New Phytologist, 2021, 229, 1398-1414.	7.3	25
45	Intraspecific responses to climate reveal nonintuitive warming impacts on a widespread thermophilic conifer. New Phytologist, 2020, 228, 525-540.	7.3	24
46	Tree growth and water-use in hyper-arid Acacia occurs during the hottest and driest season. Oecologia, 2018, 188, 695-705.	2.0	23
47	Ectomycorrhizal fungi mediate belowground carbon transfer between pines and oaks. ISME Journal, 2022, 16, 1420-1429.	9.8	20
48	Drought tolerance mechanisms and aquaporin expression of wild vs. cultivated pear tree species in the field. Environmental and Experimental Botany, 2019, 167, 103832.	4.2	19
49	Interannual adjustments in stomatal and leaf morphological traits of European beech (<i>Fagus) Tj ETQq1 1 0.784314 rgBT /Overlock 1 1287-1296.	3.8	19
50	Carbon allocation dynamics in conifers and broadleaved tree species revealed by pulse labeling and mass balance. Forest Ecology and Management, 2021, 493, 119258.	3.2	18
51	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
52	Measuring the effect of plant-community composition on carbon fixation on green roofs. Urban Forestry and Urban Greening, 2017, 24, 1-4.	5.3	16
53	A hidden mechanism of forest loss under climate change: The role of drought in eliminating forest regeneration at the edge of its distribution. Forest Ecology and Management, 2022, 506, 119966.	3.2	15
54	Increased Nitrogen Availability in the Soil Under Mature Picea abies Trees Exposed to Elevated CO2 Concentrations. Frontiers in Forests and Global Change, 2019, 2, .	2.3	14

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55	Interspecific Soil Water Partitioning as a Driver of Increased Productivity in a Diverse Mixed Mediterranean Forest. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006382.	3.0	13
56	Conifer desiccation in the 2021 NW heatwave confirms the role of hydraulic damage. Tree Physiology, 2022, 42, 722-726.	3.1	11
57	Intraspecific plasticity in hydraulic and stomatal regulation under drought is linked to aridity at the seed source in a wild pear species. Tree Physiology, 2021, 41, 960-973.	3.1	10
58	A race to the unknown: Contemporary research on tree and forest drought resistance, an Israeli perspective. Journal of Arid Environments, 2020, 172, 104045.	2.4	9
59	Drought tolerance of wild versus cultivated tree species of almond and plum in the field. Tree Physiology, 2020, 40, 454-466.	3.1	9
60	Rapid stomatal response in lemon saves trees and their fruit yields under summer desiccation, but fails under recurring droughts. Agricultural and Forest Meteorology, 2021, 307, 108487.	4.8	9
61	Asymmetric belowground carbon transfer in a diverse tree community. Molecular Ecology, 2022, 31, 3481-3495.	3.9	9
62	In situ, direct observation of seasonal embolism dynamics in Aleppo pine trees growing on the dry edge of their distribution. New Phytologist, 2022, 235, 1344-1350.	7.3	9
63	The effect of elevated CO2 on aboveground and belowground carbon allocation and eco-physiology of four species of angiosperm and gymnosperm forest trees. Tree Physiology, 2022, 42, 831-847.	3.1	8
64	Tree rings reveal the adverse effect of water pumping on protected riparian Platanus orientalis tree growth. Forest Ecology and Management, 2020, 458, 117784.	3.2	7
65	Physiological drought resistance mechanisms in wild species vs. rootstocks of almond and plum. Trees - Structure and Function, 2022, 36, 669-683.	1.9	7
66	Exposing the hidden half: root research at the forefront of science. Plant and Soil, 2020, 447, 1-5.	3.7	6
67	Editorial: Plant-Soil Interactions Under Changing Climate. Frontiers in Plant Science, 2020, 11, 621235.	3.6	3
68	Higher risk for six endemic and endangered Lagochilus species in Central Asia under drying climate. Perspectives in Plant Ecology, Evolution and Systematics, 2021, 48, 125586.	2.7	3
69	Mitigating negative effects of long-term treated wastewater irrigation: Leaf gas exchange and water use efficiency response of avocado trees (Persea americana Mill.). Agricultural Water Management, 2021, 256, 107126.	5.6	3
70	Forest GPP Calculation Using Sap Flow and Water Use Efficiency Measurements. Bio-protocol, 2017, 7, e2221.	0.4	3
71	Physiological effects of mature tree transplanting characterize the roles of the soil-root interface in the field. Agricultural and Forest Meteorology, 2020, 295, 108192.	4.8	2
72	Tree Forensics: Modern DNA barcoding and traditional anatomy identify roots threatening an ancient necropolis. Plants People Planet, 2021, 3, 211-219.	3.3	2

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73	A montane species treeline is defined by both temperature and drought effects on growth season length. Tree Physiology, 0, , .	3.1	1
74	Unexpectedly low Î´â€Š13C in leaves, branches, stems and roots of three acacia species growing in hyper-arid environments. Journal of Plant Ecology, 2021, 14, 117-131.	2.3	0
75	Carbon Allocation Dynamics in Mediterranean Pines Under Stress. Managing Forest Ecosystems, 2021, , 117-128.	0.9	0