Arthur Gessler

List of Publications by Year
in descending order

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253	16,148	14124	26792
papers	citations	69	111
		h-index	g-index

264	264	264	15333
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A highâ€temperature water vapor equilibration method to determine nonâ€exchangeable hydrogen isotope ratios of sugar, starch and cellulose. Plant, Cell and Environment, 2022, 45, 12-22.	2.8	21
2	Recovery of silver fir (Abies alba Mill.) seedlings from ungulate browsing mirrors soil nitrogen availability. Tree Physiology, 2022, 42, 273-288.	1.4	1
3	Drought reduces water uptake in beech from the drying topsoil, but no compensatory uptake occurs from deeper soil layers. New Phytologist, 2022, 233, 194-206.	3.5	51
4	Tree allocation dynamics beyond heat and hot drought stress reveal changes in carbon storage, belowground translocation and growth. New Phytologist, 2022, 233, 687-704.	3.5	17
5	Photosynthetic acclimation and sensitivity to short- and long-term environmental changes in a drought-prone forest. Journal of Experimental Botany, 2022, 73, 2576-2588.	2.4	12
6	Forest tree growth is linked to mycorrhizal fungal composition and function across Europe. ISME Journal, 2022, 16, 1327-1336.	4.4	62
7	Divergent roles of iron and aluminum in sediment organic matter association at the terrestrialâ€“aquatic interface. Biogeochemistry, 2022, 157, 355-378.	1.7	6
8	Lessons learned from a longâ€term irrigation experiment in a dry Scots pine forest: Impacts on traits and functioning. Ecological Monographs, 2022, 92, e1507.	2.4	15
9	Kettle holes reflect the biogeochemical characteristics of their catchment area and the intensity of the element-specific input. Journal of Soils and Sediments, 2022, 22, 994.	1.5	1
10	Number of growth days and not length of the growth period determines radial stem growth of temperate trees. Ecology Letters, 2022, 25, 427-439.	3.0	58
11	Do ²H and ¹⁸O in leaf water reflect environmental drivers differently?. New Phytologist, 2022, 235, 41-51.	3.5	29
12	Mutually inclusive mechanisms of droughtâ€induced tree mortality. Global Change Biology, 2022, 28, 3365-3378.	4.2	37
13	In situ 13CO2 labeling reveals that alpine treeline trees allocate less photoassimilates to roots compared with low-elevation trees. Tree Physiology, 2022, , .	1.4	3
14	There Is No Carbon Transfer Between Scots Pine and Pine Mistletoe but the Assimilation Capacity of the Hemiparasite Is Constrained by Host Water Use Under Dry Conditions. Frontiers in Plant Science, 2022, 13, .	1.7	2
15	Root Carbon Resources Determine Survival and Growth of Young Trees Under Long Drought in Combination With Fertilization. Frontiers in Plant Science, 2022, 13, .	1.7	4
16	Postphotosynthetic Fractionation in Leaves, Phloem and Stem. Tree Physiology, 2022, , 381-396.	0.9	8
17	Investment of needle nitrogen to photosynthesis controls the nonlinear productivity response of young Chinese fir trees to nitrogen deposition. Science of the Total Environment, 2022, 840, 156537.	3.9	10
18	Impact of warmer and drier conditions on tree photosynthetic properties and the role of species interactions. New Phytologist, 2022, 236, 547-560.	3.5	12

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19	Sucrose synthase â€“ an enzyme with a central role in the sourceâ€“sink coordination and carbon flow in trees. New Phytologist, 2021, 229, 8-10.	3.5	4
20	Tree vitality indicators revealed a rapid response of beech forests to the 2018 drought. Ecological Indicators, 2021, 120, 106903.	2.6	52
21	Effects of drought on nitrogen uptake and carbon dynamics in trees. Tree Physiology, 2021, 41, 927-943.	1.4	18
22	Root traits as drivers of plant and ecosystem functioning: current understanding, pitfalls and future research needs. New Phytologist, 2021, 232, 1123-1158.	3.5	277
23	Mortality predispositions of conifers across western USA. New Phytologist, 2021, 229, 831-844.	3.5	11
24	Soil nutrient availability alters tree carbon allocation dynamics during drought. Tree Physiology, 2021, 41, 697-707.	1.4	28
25	Effects of soil moisture, needle age and leaf morphology on carbon and oxygen uptake, incorporation and allocation: a dual labeling approach with 13CO2 and H218O in foliage of a coniferous forest. Tree Physiology, 2021, 41, 50-62.	1.4	7
26	Root carbon and nutrient homeostasis determines downy oak sapling survival and recovery from drought. Tree Physiology, 2021, 41, 1400-1412.	1.4	19
27	Chilled to be forced: the best dose to wake up buds from winter dormancy. New Phytologist, 2021, 230, 1366-1377.	3.5	47
28	Sink and source co-limitation in the response of stored non-structural carbohydrates to an intense but short drought. Trees - Structure and Function, 2021, 35, 1751-1754.	0.9	11
29	Drought alters the carbon footprint of trees in soilsâ€”tracking the spatioâ€temporal fate of ‹sup›13‹/sup›Câ€labelled assimilates in the soil of an oldâ€growth pine forest. Global Change Biology, 2021, 27, 2491-2506.	4.2	32
30	Drought effects on carbon allocation to resin defences and on resin dynamics in old-grown Scots pine. Environmental and Experimental Botany, 2021, 185, 104410.	2.0	22
31	Tree growth in Switzerland is increasingly constrained by rising evaporative demand. Journal of Ecology, 2021, 109, 2981-2990.	1.9	22
32	Growth resistance and resilience of mixed silver fir and Norway spruce forests in central Europe: Contrasting responses to mild and severe droughts. Global Change Biology, 2021, 27, 4403-4419.	4.2	64
33	Grow slowly, persist, dominateâ€”Explaining beech dominance in a primeval forest. Ecology and Evolution, 2021, 11, 10077-10089.	0.8	12
34	Why trees grow at night. New Phytologist, 2021, 231, 2174-2185.	3.5	98
35	Contrasting Resource Dynamics in Mast Years for European Beech and Oakâ€”A Continental Scale Analysis. Frontiers in Forests and Global Change, 2021, 4, .	1.0	16
36	Climate sensitivity and drought seasonality determine post-drought growth recovery of Quercus petraea and Quercus robur in Europe. Science of the Total Environment, 2021, 784, 147222.	3.9	61

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37	Interactive effects of tree species mixture and climate on foliar and woody trait variation in a widely distributed deciduous tree. Functional Ecology, 2021, 35, 2397-2408.	1.7	10
38	Both diversity and functional composition affect productivity and water use efficiency in experimental temperate grasslands. Journal of Ecology, 2021, 109, 3877-3891.	1.9	12
39	Droneâ€based physiological index reveals longâ€term acclimation and drought stress responses in trees. Plant, Cell and Environment, 2021, 44, 3552-3570.	2.8	25
40	A starting guide to root ecology: strengthening ecological concepts and standardising root classification, sampling, processing and trait measurements. New Phytologist, 2021, 232, 973-1122.	3.5	216
41	Water transport in treesâ€"the importance of radial and circumferential transport. Tree Physiology, 2021, 41, 2245-2247.	1.4	6
42	Drought effects on volatile organic compound emissions from Scots pine stems. Plant, Cell and Environment, 2021, , .	2.8	4
43	TreeNetâ€"The Biological Drought and Growth Indicator Network. Frontiers in Forests and Global Change, 2021, 4, .	1.0	13
44	Soil nutrients and lowered source:sink ratio mitigate effects of mild but not of extreme drought in trees. Environmental and Experimental Botany, 2020, 169, 103905.	2.0	28
45	Day length regulates seasonal patterns of stomatal conductance in Quercus species. Plant, Cell and Environment, 2020, 43, 28-39.	2.8	10
46	Nitrogen deposition is the most important environmental driver of growth of pure, even-aged and managed European forests. Forest Ecology and Management, 2020, 458, 117762.	1.4	102
47	The ¹⁸Oâ€signal transfer from water vapour to leaf water and assimilates varies among plant species and growth forms. Plant, Cell and Environment, 2020, 43, 510-523.	2.8	27
48	Rhizosphere activity in an old-growth forest reacts rapidly to changes in soil moisture and shapes whole-tree carbon allocation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24885-24892.	3.3	50
49	Circadian Regulation Does Not Optimize Stomatal Behaviour. Plants, 2020, 9, 1091.	1.6	8
50	Clear Language for Ecosystem Management in the Anthropocene: A Reply to Bridgewater and Hemming. BioScience, 2020, 70, 374-376.	2.2	2
51	Growth and resilience responses of Scots pine to extreme droughts across Europe depend on predrought growth conditions. Global Change Biology, 2020, 26, 4521-4537.	4.2	105
52	The way back: recovery of trees from drought and its implication for acclimation. New Phytologist, 2020, 228, 1704-1709.	3.5	79
53	Microhabitat and ectomycorrhizal effects on the establishment, growth and survival of Quercus ilex L. seedlings under drought. PLoS ONE, 2020, 15, e0229807.	1.1	21
54	Leaf transition from heterotrophy to autotrophy is recorded in the intraleaf C, H and O isotope patterns of leaf organic matter. Rapid Communications in Mass Spectrometry, 2020, 34, e8840.	0.7	11

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55	Xylem sap phosphorus sampling using microdialysisâ€"a non-destructive high sampling frequency method tested under laboratory and field conditions. Tree Physiology, 2020, 40, 1623-1638.	1.4	5
56	Assessing the response of forest productivity to climate extremes in Switzerland using modelâ€"data fusion. Global Change Biology, 2020, 26, 2463-2476.	4.2	54
57	Memory of environmental conditions across generations affects the acclimation potential of scots pine. Plant, Cell and Environment, 2020, 43, 1288-1299.	2.8	28
58	Determinants of legacy effects in pine trees â€" implications from an irrigationâ€stop experiment. New Phytologist, 2020, 227, 1081-1096.	3.5	52
59	FrÃ¼her Laubfall der Buche wÃhrend der Sommertrockenheit 2018: Resistenz oder SchwÃchesymptom?. Schweizerische Zeitschrift Fur Forstwesen, 2020, 171, 257-269.	0.5	16
60	Contrasting resistance and resilience to extreme drought and late spring frost in five major European tree species. Global Change Biology, 2019, 25, 3781-3792.	4.2	152
61	Above- and belowground overyielding are related at the community and species level in a grassland biodiversity experiment. Advances in Ecological Research, 2019, 61, 55-89.	1.4	12
62	Differences in isoprenoid-mediated energy dissipation pathways between coastal and interior Douglas-fir seedlings in response to drought. Tree Physiology, 2019, 39, 1750-1766.	1.4	5
63	The biogeochemical niche shifts of Pinus sylvestris var. mongolica along an environmental gradient. Environmental and Experimental Botany, 2019, 167, 103825.	2.0	14
64	Towards an Integrative, Eco-Evolutionary Understanding of Ecological Novelty: Studying and Communicating Interlinked Effects of Global Change. BioScience, 2019, 69, 888-899.	2.2	55
65	Effects of elevated growth temperature and enhanced atmospheric vapour pressure deficit on needle and root terpenoid contents of two Douglas fir provenances. Environmental and Experimental Botany, 2019, 166, 103819.	2.0	13
66	Defoliation estimation of forest trees from ground-level images. Remote Sensing of Environment, 2019, 223, 143-153.	4.6	23
67	Integrating Aquatic and Terrestrial Perspectives to Improve Insights Into Organic Matter Cycling at the Landscape Scale. Frontiers in Earth Science, 2019, 7, .	0.8	22
68	Plasticity of Fine-Root Traits Under Long-Term Irrigation of a Water-Limited Scots Pine Forest. Frontiers in Plant Science, 2019, 10, 701.	1.7	32
69	No Ontogenetic Shifts in C-, N- and P-Allocation for Two Distinct Tree Species along Elevational Gradients in the Swiss Alps. Forests, 2019, 10, 394.	0.9	2
70	Coordinating supply and demand: plant carbon allocation strategy ensuring survival in the long run. New Phytologist, 2019, 222, 5-7.	3.5	25
71	Functional composition has stronger impact than species richness on carbon gain and allocation in experimental grasslands. PLoS ONE, 2019, 14, e0204715.	1.1	8
72	Influence of starch deficiency on photosynthetic and post-photosynthetic carbon isotope fractionations. Journal of Experimental Botany, 2019, 70, 1829-1841.	2.4	17

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73	Application of a laser-based spectrometer for continuous in situ measurements of stable isotopes of soil CO₂ in calcareous and acidic soils. Soil, 2019, 5, 49-62.	2.2	8
74	Ecosystem functioning in urban grasslands: The role of biodiversity, plant invasions and urbanization. PLoS ONE, 2019, 14, e0225438.	1.1	22
75	Pervasive decreases in living vegetation carbon turnover time across forest climate zones. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24662-24667.	3.3	52
76	High carbon storage in carbonâ€limited trees. New Phytologist, 2019, 222, 171-182.	3.5	54
77	Identifying the tree species compositions that maximize ecosystem functioning in European forests. Journal of Applied Ecology, 2019, 56, 733-744.	1.9	58
78	Depth matters: effects of precipitation regime on soil microbial activity upon rewetting of a plant-soil system. ISME Journal, 2018, 12, 1061-1071.	4.4	94
79	Research frontiers for improving our understanding of droughtâ€induced tree and forest mortality. New Phytologist, 2018, 218, 15-28.	3.5	334
80	Degradability of raw and post-processed chars in a two-year field experiment. Science of the Total Environment, 2018, 628-629, 1600-1608.	3.9	8
81	Intramolecular 13C analysis of tree rings provides multiple plant ecophysiology signals covering decades. Scientific Reports, 2018, 8, 5048.	1.6	26
82	Drought induced tree mortality â€“ a treeâ€ring isotope based conceptual model to assess mechanisms and predispositions. New Phytologist, 2018, 219, 485-490.	3.5	82
83	Ozone effects on European forest growthâ€”Towards an integrative approach. Journal of Ecology, 2018, 106, 1377-1389.	1.9	48
84	Belowâ€ground resource partitioning alone cannot explain the biodiversityâ€“ecosystem function relationship: A field test using multiple tracers. Journal of Ecology, 2018, 106, 2002-2018.	1.9	53
85	Responses of the structure and function of the understory plant communities to precipitation reduction across forest ecosystems in Germany. Annals of Forest Science, 2018, 75, 1.	0.8	13
86	Genotypic variability enhances the reproducibility of an ecological study. Nature Ecology and Evolution, 2018, 2, 279-287.	3.4	41
87	Ephemeral kettle hole water and sediment temporal and spatial dynamics within an agricultural catchment. Ecohydrology, 2018, 11, e1929.	1.1	13
88	Meteorological data series from Swiss long-term forest ecosystem research plots since 1997. Annals of Forest Science, 2018, 75, 1.	0.8	7
89	Editorâ€™s highlight for TSAF D-17-00396: carbon and oxygen isotopes in tree ringsâ€”climate signals and microsite effects. Trees - Structure and Function, 2018, 32, 881-882.	0.9	1
90	Circadian regulation of photosynthesis and transpiration from genes to ecosystems. Environmental and Experimental Botany, 2018, 152, 37-48.	2.0	42

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91	Belowâ€ground complementarity effects in a grassland biodiversity experiment are related to deepâ€rooting species. Journal of Ecology, 2018, 106, 265-277.	1.9	76
92	The effect of ¹⁸Oâ€labelled water vapour on the oxygen isotope ratio of water and assimilates in plants at high humidity. New Phytologist, 2018, 217, 105-116.	3.5	45
93	On the contributions of photorespiration and compartmentation to the contrasting intramolecular 2H profiles of C3 and C4 plant sugars. Phytochemistry, 2018, 145, 197-206.	1.4	16
94	Continental mapping of forest ecosystem functions reveals a high but unrealised potential for forest multifunctionality. Ecology Letters, 2018, 21, 31-42.	3.0	74
95	Dynamic niche partitioning in root water uptake facilitates efficient water use in more diverse grassland plant communities. Functional Ecology, 2018, 32, 214-227.	1.7	51
96	Scale dependent responses of pine reproductive traits to experimental and natural precipitation gradients. Environmental and Experimental Botany, 2018, 156, 62-73.	2.0	8
97	Homeostatic levels of nonstructural carbohydrates after 13Âyr of drought and irrigation in Pinus sylvestris. New Phytologist, 2018, 219, 1314-1324.	3.5	65
98	Reductions in tree performance during hotter droughts are mitigated by shifts in nitrogen cycling. Plant, Cell and Environment, 2018, 41, 2627-2637.	2.8	15
99	Impact of weather cues and resource dynamics on mast occurrence in the main forest tree species in Europe. Forest Ecology and Management, 2018, 429, 336-350.	1.4	50
100	Structural and anatomical responses of Pinus sylvestris and Tilia platyphyllos seedlings exposed to water shortage. Trees - Structure and Function, 2018, 32, 1211-1218.	0.9	20
101	Foliar nitrogen metabolism of adult Douglas-fir trees is affected by soil water availability and varies little among provenances. PLoS ONE, 2018, 13, e0194684.	1.1	9
102	Endogenous circadian rhythms in pigment composition induce changes in photochemical efficiency in plant canopies. Plant, Cell and Environment, 2017, 40, 1153-1162.	2.8	26
103	Night and day â€“ Circadian regulation of night-time dark respiration and light-enhanced dark respiration in plant leaves and canopies. Environmental and Experimental Botany, 2017, 137, 14-25.	2.0	23
104	Variation in short-term and long-term responses of photosynthesis and isoprenoid-mediated photoprotection to soil water availability in four Douglas-fir provenances. Scientific Reports, 2017, 7, 40145.	1.6	14
105	Effects of drought on leaf carbon source and growth of European beech are modulated by soil type. Scientific Reports, 2017, 7, 42462.	1.6	34
106	Responses of sapwood ray parenchyma and nonâ€structural carbohydrates of Pinus sylvestris to drought and longâ€term irrigation. Functional Ecology, 2017, 31, 1371-1382.	1.7	70
107	The fate of recently fixed carbon after drought release: towards unravelling <scp>C</scp> storage regulation in <scp>Tilia platyphyllos</scp> and <scp>Pinus sylvestris</scp>. Plant, Cell and Environment, 2017, 40, 1711-1724.	2.8	96
108	Tree diversity affects chlorophyllafluorescence and other leaf traits of tree species in a boreal forest. Tree Physiology, 2017, 37, 199-208.	1.4	19

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109	Plasticity in gasâ€exchange physiology of mature Scots pine and European larch drive shortâ€and longâ€term adjustments to changes in water availability. Plant, Cell and Environment, 2017, 40, 1972-1983.	2.8	12
110	Nitrogen nutrition of beech forests in a changing climate: importance of plant-soil-microbe water, carbon, and nitrogen interactions. Plant and Soil, 2017, 418, 89-114.	1.8	58
111	Circadian rhythms regulate the environmental responses of net CO2 exchange in bean and cotton canopies. Agricultural and Forest Meteorology, 2017, 239, 185-191.	1.9	6
112	Experimental evidence of two mechanisms coupling leaf-level C assimilation to rhizosphere CO2 release. Environmental and Experimental Botany, 2017, 135, 21-26.	2.0	9
113	Thinning effect on photosynthesis depends on needle ages in a Chinese fir (Cunninghamia lanceolata) plantation. Science of the Total Environment, 2017, 580, 900-906.	3.9	27
114	Winter respiratory C losses provide explanatory power for net ecosystem productivity. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 243-260.	1.3	7
115	Organic matter distribution and retention along transects from hilltop to kettle hole within an agricultural landscape. Biogeochemistry, 2017, 136, 47-70.	1.7	24
116	Drought effects on root and needle terpenoid content of a coastal and an interior Douglas fir provenance. Tree Physiology, 2017, 37, 1648-1658.	1.4	49
117	Biodiversity and ecosystem functioning relations in European forests depend on environmental context. Ecology Letters, 2017, 20, 1414-1426.	3.0	244
118	Top canopy nitrogen allocation linked to increased grassland carbon uptake in stands of varying species richness. Scientific Reports, 2017, 7, 8392.	1.6	3
119	Root chemistry and soil fauna, but not soil abiotic conditions explain the effects of plant diversity on root decomposition. Oecologia, 2017, 185, 499-511.	0.9	13
120	Biodiversity effects on ecosystem functioning in a 15-year grassland experiment: Patterns, mechanisms, and open questions. Basic and Applied Ecology, 2017, 23, 1-73.	1.2	307
121	Plant species richness negatively affects root decomposition in grasslands. Journal of Ecology, 2017, 105, 209-218.	1.9	41
122	Land-use and hydroperiod affect kettle hole sediment carbon and nitrogen biogeochemistry. Science of the Total Environment, 2017, 574, 46-56.	3.9	28
123	The role of nutrients in droughtâ€induced tree mortality and recovery. New Phytologist, 2017, 214, 513-520.	3.5	252
124	Detecting the fingerprint of drought across Europeâ€™s forests: do carbon isotope ratios and stem growth rates tell similar stories?. Forest Ecosystems, 2017, 4, .	1.3	19
125	Where does it come from, where does it go? The role of the xylem for plant CO2 efflux. Journal of Experimental Botany, 2017, 68, 2633-2636.	2.4	3
126	A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. Nature Ecology and Evolution, 2017, 1, 1285-1291.	3.4	739

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127	Above and below ground carbohydrate allocation differs between ash (Fraxinus excelsior L.) and beech (Fagus sylvatica L.). PLoS ONE, 2017, 12, e0184247.	1.1	8
128	A coastal and an interior Douglas fir provenance exhibit different metabolic strategies to deal with drought stress. Tree Physiology, 2016, 36, tpv105.	1.4	27
129	A method for in situ monitoring of the isotope composition of tree xylem water using laser spectroscopy. Plant, Cell and Environment, 2016, 39, 2055-2063.	2.8	77
130	Highâ€resolution isotope measurements resolve rapid ecohydrological dynamics at the soilâ€“plant interface. New Phytologist, 2016, 210, 839-849.	3.5	149
131	The importance of landscape diversity for carbon fluxes at the landscape level: smallâ€scale heterogeneity matters. Wiley Interdisciplinary Reviews: Water, 2016, 3, 601-617.	2.8	32
132	Visualizing landâ€use and management complexity within biogeochemical cycles of an agricultural landscape. Ecosphere, 2016, 7, e01282.	1.0	17
133	Plant functional diversity increases grassland productivityâ€related water vapor fluxes: an Ecotron and modeling approach. Ecology, 2016, 97, 2044-2054.	1.5	25
134	Improvement of water and light availability after thinning at a xeric site: which matters more? A dual isotope approach. New Phytologist, 2016, 210, 108-121.	3.5	95
135	Impact of interspecific competition and drought on the allocation of new assimilates in trees. Plant Biology, 2016, 18, 785-796.	1.8	60
136	Circadian rhythms have significant effects on leaf-to-canopy scale gas exchange under field conditions. GigaScience, 2016, 5, 43.	3.3	31
137	Jack-of-all-trades effects drive biodiversityâ€ecosystem multifunctionality relationships in European forests. Nature Communications, 2016, 7, 11109.	5.8	185
138	Effects of mistletoe removal on growth, N and C reserves, and carbon and oxygen isotope composition in Scots pine hosts. Tree Physiology, 2016, 36, 562-575.	1.4	26
139	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
140	Desiccation of sediments affects assimilate transport within aquatic plants and carbon transfer to microorganisms. Plant Biology, 2016, 18, 947-961.	1.8	2
141	Importance of tree height and social position for drought-related stress on tree growth and mortality. Trees - Structure and Function, 2016, 30, 1467-1482.	0.9	73
142	Hydrogen isotopic differences between C₃ and C₄ land plant lipids: consequences of compartmentation in C₄ photosynthetic chemistry and C₃ photorespiration. Plant, Cell and Environment, 2016, 39, 2676-2690.	2.8	22
143	Drought responses by individual tree species are not often correlated with tree species diversity in <scp>E</scp>uropean forests. Journal of Applied Ecology, 2016, 53, 1725-1734.	1.9	76
144	Recovery of trees from drought depends on belowground sink control. Nature Plants, 2016, 2, 16111.	4.7	170

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145	Forest understory plant and soil microbial response to an experimentally induced drought and heatâ€pulse event: the importance of maintaining the continuum. Global Change Biology, 2016, 22, 2861-2874.	4.2	51
146	Patterns of mast fruiting of common beech, sessile and common oak, Norway spruce and Scots pine in Central and Northern Europe. Forest Ecology and Management, 2016, 363, 237-251.	1.4	57
147	The fate and age of carbon â€“ insights into the storage and remobilization dynamics in trees. New Phytologist, 2016, 209, 1338-1340.	3.5	37
148	Seasonal photosynthetic response of European beech to severe summer drought: Limitation, recovery and post-drought stimulation. Agricultural and Forest Meteorology, 2016, 220, 83-89.	1.9	54
149	Stomatal conductance and intrinsic water use efficiency in the drought year 2003: a case study of European beech. Trees - Structure and Function, 2016, 30, 153-174.	0.9	31
150	The influence of the soil on spring and autumn phenology in European beech. Tree Physiology, 2016, 36, 78-85.	1.4	30
151	Biotic homogenization can decrease landscape-scale forest multifunctionality. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3557-3562.	3.3	196
152	Water level changes affect carbon turnover and microbial community composition in lake sediments. FEMS Microbiology Ecology, 2016, 92, fiw035.	1.3	39
153	Physiological significance of forest tree defoliation: Results from a survey in a mixed forest in Tuscany (central Italy). Forest Ecology and Management, 2016, 361, 170-178.	1.4	35
154	Yield gap of winter wheat in Europe and sensitivity of potential yield to climate factors. Climate Research, 2016, 67, 179-190.	0.4	5
155	Processes driving nocturnal transpiration and implications for estimating land evapotranspiration. Scientific Reports, 2015, 5, 10975.	1.6	85
156	Plant diversity shapes microbeâ€rhizosphere effects on P mobilisation from organic matter in soil. Ecology Letters, 2015, 18, 1356-1365.	3.0	57
157	Drought in forest understory ecosystems â€“ a novel rainfall reduction experiment. Biogeosciences, 2015, 12, 961-975.	1.3	36
158	Biodiversity research: data without theoryÃ¢â‚¬â€theory without data. Frontiers in Ecology and Evolution, 2015, 3, .	1.1	13
159	Soil Bacterial Community Structure Responses to Precipitation Reduction and Forest Management in Forest Ecosystems across Germany. PLoS ONE, 2015, 10, e0122539.	1.1	38
160	Allocate carbon for a reason: Priorities are reflected in the 13C/12C ratios of plant lipids synthesized via three independent biosynthetic pathways. Phytochemistry, 2015, 111, 14-20.	1.4	20
161	Influence of species interactions on transpiration of Mediterranean tree species during a summer drought. European Journal of Forest Research, 2015, 134, 365-376.	1.1	35
162	Phloem flow and sugar transport in <scp>R</scp>icinus communisâ€¦<scp>L</scp>. is inhibited under anoxic conditions of shoot or roots. Plant, Cell and Environment, 2015, 38, 433-447.	2.8	31

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163	Short-Term Response of Soil Respiration to Addition of Chars: Impact of Fermentation Post-Processing and Mineral Nitrogen. Pedosphere, 2015, 25, 761-769.	2.1	15
164	Douglas-Fir Seedlings Exhibit Metabolic Responses to Increased Temperature and Atmospheric Drought. PLoS ONE, 2014, 9, e114165.	1.1	21
165	Stable isotopes in tree rings: towards a mechanistic understanding of isotope fractionation and mixing processes from the leaves to the wood. Tree Physiology, 2014, 34, 796-818.	1.4	359
166	Impact of interspecific interactions on the soil water uptake depth in a young temperate mixed species plantation. Journal of Hydrology, 2014, 519, 3511-3519.	2.3	66
167	Quantifying resource use complementarity in grassland species: A comparison of different nutrient tracers. Pedobiologia, 2014, 57, 251-256.	0.5	14
168	Turnover time of the nonâ€structural carbohydrate pool influences Î´¹⁸<scp>O</scp> of leaf cellulose. Plant, Cell and Environment, 2014, 37, 2500-2507.	2.8	48
169	Seasonal transfer of oxygen isotopes from precipitation and soil to the tree ring: source water versus needle water enrichment. New Phytologist, 2014, 202, 772-783.	3.5	171
170	Elevated temperature differently affects foliar nitrogen partitioning in seedlings of diverse Douglas fir provenances. Tree Physiology, 2014, 34, 1090-1101.	1.4	21
171	Does Drought Influence the Relationship Between Biodiversity and Ecosystem Functioning in Boreal Forests?. Ecosystems, 2014, 17, 394-404.	1.6	94
172	Functional diversity of leaf nitrogen concentrations drives grassland carbon fluxes. Ecology Letters, 2014, 17, 435-444.	3.0	94
173	Drought response of mesophyll conductance in forest understory species - impacts on water-use efficiency and interactions with leaf water movement. Physiologia Plantarum, 2014, 152, 98-114.	2.6	44
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