Jacek Oleksyn

List of Publications by Year
in descending order

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118 papers	27,032 citations	26567 56 h-index	18606 119 g-index
122 all docs	122 docs citations	122 times ranked	24202 citing authors

#	Article	IF	Citations
1	Stomatal density in Pinus sylvestris as an indicator of temperature rather than CO₂: Evidence from a panâ€European transect. Plant, Cell and Environment, 2022, 45, 121-132.	2.8	7
2	Anatomical adjustment of mature leaves of sycamore maple (Acer pseudoplatanus L.) to increased irradiance. Photosynthesis Research, 2022, , 1.	1.6	1
3	Mechanistic drivers of stem respiration: A modelling exercise across species and seasons. Plant, Cell and Environment, 2022, 45, 1270-1285.	2.8	6
4	Axial variability of anatomical structure and the scaling relationships in Scots pine (Pinus sylvestris) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2021, 274, 151747.	0.6	3
5	Higher biomass partitioning to absorptive roots improves needle nutrition but does not alleviate stomatal limitation of northern Scots pine. Global Change Biology, 2021, 27, 3859-3869.	4.2	7
6	<scp>TR</scp>eSpire â€“ a biophysical <scp>TR</scp>ee Stem respiration model. New Phytologist, 2020, 225, 2214-2230.	3.5	16
7	Fine root classification matters: nutrient levels in different functional categories, orders and diameters of roots in boreal Pinus sylvestris across a latitudinal gradient. Plant and Soil, 2020, 447, 507-520.	1.8	12
8	An alternative, portable method for extracting microarthropods from forest soil. Acta Oecologica, 2020, 109, 103655.	0.5	3
9	A fingerprint of climate change across pine forests of Sweden. Ecology Letters, 2020, 23, 1739-1746.	3.0	5
10	Woody tissue photosynthesis delays drought stress in Populus tremula trees and maintains starch reserves in branch xylem tissues. New Phytologist, 2020, 228, 70-81.	3.5	30
11	Carbohydrate dynamics in a resprouting species after severe aboveground perturbations. European Journal of Forest Research, 2020, 139, 841-852.	1.1	14
12	Woody tissue photosynthesis increases radial stem growth of young poplar trees under ambient atmospheric CO2 but its contribution ceases under elevated CO2. Tree Physiology, 2020, 40, 1572-1582.	1.4	9
13	Remarkable Similarity in Timing of Absorptive Fine-Root Production Across 11 Diverse Temperate Tree Species in a Common Garden. Frontiers in Plant Science, 2020, 11, 623722.	1.7	10
14	Species-specific responses of growth and biomass distribution to trellis availability in three temperate lianas. Trees - Structure and Function, 2019, 33, 921-932.	0.9	9
15	Regeneration origin affects radial growth patterns preceding oak decline and death â€“ insights from tree-ring Î´13C and Î´18O. Agricultural and Forest Meteorology, 2019, 278, 107685.	1.9	18
16	Does climate-related in situ variability of Scots pine (Pinus sylvestris L.) needles have a genetic basis? Evidence from common garden experiments. Tree Physiology, 2019, 39, 573-589.	1.4	16
17	Biomass and nitrogen distribution ratios reveal a reduced root investment in temperate lianas vs. self-supporting plants. Annals of Botany, 2019, 124, 777-790.	1.4	6
18	Soil organic carbon stability in forests: Distinct effects of tree species identity and traits. Global Change Biology, 2019, 25, 1529-1546.	4.2	104

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19	Functional response of Quercus robur L. to taproot pruning: a 5-year case study. Annals of Forest Science, 2018, 75, 1.	0.8	10
20	Accumulation of particulate matter, heavy metals, and polycyclic aromatic hydrocarbons on the leaves of Tilia cordata Mill. in five Polish cities with different levels of air pollution. International Journal of Phytoremediation, 2017, 19, 1134-1141.	1.7	43
21	Tertiary remnants and Holocene colonizers: Genetic structure and phylogeography of Scots pine reveal higher genetic diversity in young boreal than in relict Mediterranean populations and a dual colonization of Fennoscandia. Diversity and Distributions, 2017, 23, 540-555.	1.9	39
22	Cold adaptation drives variability in needle structure and anatomy in <scp>P</scp>inus sylvestris L. along a 1,900Âkm temperateâ€“boreal transect. Functional Ecology, 2017, 31, 2212-2223.	1.7	33
23	Droughtâ€induced shoot dieback starts with massive root xylem embolism and variable depletion of nonstructural carbohydrates in seedlings of two tree species. New Phytologist, 2017, 213, 597-610.	3.5	67
24	Patterns of structural and defense investments in fine roots of Scots pine (Pinus sylvestris L.) across a strong temperature and latitudinal gradient in Europe. Global Change Biology, 2017, 23, 1218-1231.	4.2	74
25	Scots pine fine roots adjust along a 2000â€km latitudinal climatic gradient. New Phytologist, 2016, 212, 389-399.	3.5	98
26	Unearthing the roots of degradation of Quercus pyrenaica coppices: A root-to-shoot imbalance caused by historical management?. Forest Ecology and Management, 2016, 363, 200-211.	1.4	43
27	Positive biodiversity-productivity relationship predominant in global forests. Science, 2016, 354, .	6.0	864
28	Light, earthworms, and soil resources as predictors of diversity of 10 soil invertebrate groups across monocultures of 14 tree species. Soil Biology and Biochemistry, 2016, 92, 184-198.	4.2	91
29	Zanne et al. reply. Nature, 2015, 521, E6-E7.	13.7	3
30	Carbon allocation in seedlings of deciduous tree species depends on their shade tolerance. Acta Physiologiae Plantarum, 2015, 37, 1.	1.0	25
31	Effects of litter traits, soil biota, and soil chemistry on soil carbon stocks at a common garden with 14 tree species. Biogeochemistry, 2015, 123, 313-327.	1.7	77
32	How does biomass distribution change with size and differ among species? An analysis for 1200 plant species from five continents. New Phytologist, 2015, 208, 736-749.	3.5	239
33	Stem <scp><scp>CO₂</scp></scp> efflux in six coâ€occurring tree species: underlying factors and ecological implications. Plant, Cell and Environment, 2015, 38, 1104-1115.	2.8	30
34	Biogeographic variation in evergreen conifer needle longevity and impacts on boreal forest carbon cycle projections. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13703-13708.	3.3	106
35	Invasive Prunus serotina - a new host for Yponomeuta evonymellus (Lepidoptera: Yponomeutidae)?. European Journal of Entomology, 2014, 111, 227-236.	1.2	19
36	Temperature drives global patterns in forest biomass distribution in leaves, stems, and roots. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13721-13726.	3.3	249

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37	Functional distinctiveness of major plant lineages. Journal of Ecology, 2014, 102, 345-356.	1.9	108
38	Three keys to the radiation of angiosperms into freezing environments. Nature, 2014, 506, 89-92.	13.7	1,284
39	The silent shareholder in deterioration of oak growth: common planting practices affect the long-term response of oaks to periodic drought. Forest Ecology and Management, 2014, 318, 133-141.	1.4	28
40	Season and light affect constitutive defenses of understory shrub species against folivorous insects. Acta Oecologica, 2013, 53, 19-32.	0.5	44
41	Phenotypic correlates of the lianescent growth form: a review. Annals of Botany, 2013, 112, 1667-1681.	1.4	91
42	What controls the concentration of various aliphatic lipids in soil?. Soil Biology and Biochemistry, 2013, 63, 14-17.	4.2	22
43	Biodiversity of Balcan pine (Pinus peuce Griseb.) experimental stands in the RogÃ³w Arboretum (Poland). Folia Forestalia Polonica, Series A, 2013, 55, .	0.1	1
44	Do evergreen and deciduous trees have different effects on net N mineralization in soil?. Ecology, 2012, 93, 1463-1472.	1.5	45
45	No globally consistent effect of ectomycorrhizal status on foliar traits. New Phytologist, 2012, 196, 845-852.	3.5	78
46	Responses of leaf structure and photosynthetic properties to intra-canopy light gradients: a common garden test with four broadleaf deciduous angiosperm and seven evergreen conifer tree species. Oecologia, 2012, 170, 11-24.	0.9	93
47	Tree species effects on coupled cycles of carbon, nitrogen, and acidity in mineral soils at a common garden experiment. Biogeochemistry, 2012, 111, 601-614.	1.7	184
48	Differentiating temperate tree species and their organs using lipid biomarkers in leaves, roots and soil. Organic Geochemistry, 2012, 52, 130-141.	0.9	53
49	Avoiding transport bottlenecks in an expanding root system: Xylem vessel development in fibrous and pioneer roots under field conditions. American Journal of Botany, 2012, 99, 1417-1426.	0.8	52
50	Lifetime return on investment increases with leaf lifespan among 10 Australian woodland species. New Phytologist, 2012, 193, 409-419.	3.5	41
51	Biomass allocation to leaves, stems and roots: metaâ€analyses of interspecific variation and environmental control. New Phytologist, 2012, 193, 30-50.	3.5	2,012
52	Ectomycorrhizal fungal communities of native and non-native Pinus and Quercus species in a common garden of 35-year-old trees. Mycorrhiza, 2012, 22, 121-134.	1.3	66
53	TRY â€“ a global database of plant traits. Global Change Biology, 2011, 17, 2905-2935.	4.2	2,002
54	Decomposition of the finest root branching orders: linking belowground dynamics to fine-root function and structure. Ecological Monographs, 2011, 81, 89-102.	2.4	149

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55	Fine root decomposition rates do not mirror those of leaf litter among temperate tree species. Oecologia, 2010, 162, 505-513.	0.9	229
56	Evidence of a general 2/3-power law of scaling leaf nitrogen to phosphorus among major plant groups and biomes. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 877-883.	1.2	163
57	Link between defoliation and light treatments on root vitality of five understory shrubs with different resistance to insect herbivory. Tree Physiology, 2010, 30, 969-978.	1.4	25
58	Ectomycorrhizal identity determines respiration and concentrations of nitrogen and non-structural carbohydrates in root tips: a test using Pinus sylvestris and Quercus robur saplings. Tree Physiology, 2010, 30, 648-654.	1.4	36
59	Plant host drives fungal phenology. Fungal Ecology, 2010, 3, 311-315.	0.7	13
60	Leaf phosphorus influences the photosynthesisâ€“nitrogen relation: a cross-biome analysis of 314 species. Oecologia, 2009, 160, 207-212.	0.9	274
61	Acclimation of respiratory temperature responses in northern and southern populations of Pinus banksiana. New Phytologist, 2009, 181, 218-229.	3.5	90
62	Controls on declining carbon balance with leaf age among 10 woody species in Australian woodland: do leaves have zero daily net carbon balances when they die?. New Phytologist, 2009, 183, 153-166.	3.5	82
63	Fungal Diversity of Norway Spruce Litter: Effects of Site Conditions and Premature Leaf Fall Caused By Bark Beetle Outbreak. Microbial Ecology, 2008, 56, 332-340.	1.4	22
64	Overstorey tree species regulate colonization by native and exotic plants: a source of positive relationships between understorey diversity and invasibility. Diversity and Distributions, 2008, 14, 666-675.	1.9	76
65	Climate warming will reduce growth and survival of Scots pine except in the far north. Ecology Letters, 2008, 11, 588-597.	3.0	210
66	Scaling of respiration to nitrogen in leaves, stems and roots of higher land plants. Ecology Letters, 2008, 11, 793-801.	3.0	373
67	Coupling of respiration, nitrogen, and sugars underlies convergent temperature acclimation in Pinus banksiana across wideâ€ranging sites and populations. Global Change Biology, 2008, 14, 782-797.	4.2	98
68	Feeding behavior and performance of Neodiprion sertifer larvae reared on Pinus sylvestris needles. Forest Ecology and Management, 2007, 242, 700-707.	1.4	14
69	Variation in fine root biomass of three European tree species: Beech (Fagus sylvaticaL.), Norway spruce (Picea abiesL. Karst.), and Scots pine (Pinus sylvestrisL.). Plant Biosystems, 2007, 141, 394-405.	0.8	189
70	Does the exception prove the rule? (Reply). Nature, 2007, 445, E10-E11.	13.7	11
71	Controls over leaf and litter calcium concentrations among temperate trees. Biogeochemistry, 2007, 86, 175-187.	1.7	45
72	Living on the edge: Ecology of an incipient Betula-fungal community growing on brick walls. Trees - Structure and Function, 2007, 21, 239-247.	0.9	7

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73	Tree Species Effects on Soil Organic Matter Dynamics: The Role of Soil Cation Composition. Ecosystems, 2007, 10, 999-1018.	1.6	193
74	Universal scaling of respiratory metabolism, size and nitrogen in plants. Nature, 2006, 439, 457-461.	13.7	484
75	Soil modification by different tree species influences the extent of seedling ectomycorrhizal infection. Mycorrhiza, 2006, 16, 73-79.	1.3	39
76	Interannual growth response of Norway spruce to climate along an altitudinal gradient in the Tatra Mountains, Poland. Trees - Structure and Function, 2006, 20, 735-746.	0.9	115
77	COMPARISONS OF STRUCTURE AND LIFE SPAN IN ROOTS AND LEAVES AMONG TEMPERATE TREES. Ecological Monographs, 2006, 76, 381-397.	2.4	377
78	TREE SPECIES EFFECTS ON DECOMPOSITION AND FOREST FLOOR DYNAMICS IN A COMMON GARDEN. Ecology, 2006, 87, 2288-2297.	1.5	482
79	Assessing the generality of global leaf trait relationships. New Phytologist, 2005, 166, 485-496.	3.5	1,704
80	Linking litter calcium, earthworms and soil properties: a common garden test with 14 tree species. Ecology Letters, 2005, 8, 811-818.	3.0	586
81	Modulation of leaf economic traits and trait relationships by climate. Global Ecology and Biogeography, 2005, 14, 411-421.	2.7	669
82	Differential reaction of Pinus sylvestris, quercus robur and Q. petraea trees to nitrogen and sulfur pollution. Water, Air, and Soil Pollution, 2005, 160, 95-108.	1.1	11
83	Light conditions alter accumulation of long chain polyprenols in leaves of trees and shrubs throughout the vegetation season.. Acta Biochimica Polonica, 2005, 52, 233-241.	0.3	22
84	The worldwide leaf economics spectrum. Nature, 2004, 428, 821-827.	13.7	6,489
85	Global patterns of plant leaf N and P in relation to temperature and latitude. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11001-11006.	3.3	1,544
86	Nutrient conservation increases with latitude of origin in European Pinus sylvestris populations. Oecologia, 2003, 136, 220-235.	0.9	154
87	The impact of material used for minirhizotron tubes for root research. New Phytologist, 2003, 160, 533-544.	3.5	72
88	The Evolution of Plant Functional Variation: Traits, Spectra, and Strategies. International Journal of Plant Sciences, 2003, 164, S143-S164.	0.6	1,057
89	Needle nutrients in geographically diverse Pinus sylvestris L. populations. Annals of Forest Science, 2002, 59, 1-18.	0.8	63
90	Biogeographic differences in shoot elongation pattern among European Scots pine populations. Forest Ecology and Management, 2001, 148, 207-220.	1.4	37

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91	Direct inhibition of leaf dark respiration by elevated CO2 is minor in 12 grassland species. New Phytologist, 2001, 150, 419-424.	3.5	39
92	Modelling respiration of vegetation: evidence for a general temperature-dependent Q 10. Global Change Biology, 2001, 7, 223-230.	4.2	461
93	Ontogenetic patterns of leaf CO2 exchange, morphology and chemistry in Betula pendula trees. Trees - Structure and Function, 2000, 14, 271-281.	0.9	35
94	Variation in aboveground net primary production of diverse European Pinus sylvestris populations. Trees - Structure and Function, 2000, 14, 415-421.	0.9	25
95	Changes in leaf nitrogen and carbohydrates underlie temperature and CO2acclimation of dark respiration in five boreal tree species. Plant, Cell and Environment, 1999, 22, 767-778.	2.8	192
96	Acclimation of respiration to temperature and CO 2 in seedlings of boreal tree species in relation to plant size and relative growth rate. Global Change Biology, 1999, 5, 679-691.	4.2	214
97	Title is missing!. Water, Air, and Soil Pollution, 1999, 110, 195-212.	1.1	23
98	Differential Above- and Below-ground Biomass Accumulation of EuropeanPinus sylvestrisPopulations in a 12-year-old Provenance Experiment. Scandinavian Journal of Forest Research, 1999, 14, 7-17.	0.5	72
99	Temperature and ontogeny mediate growth response to elevated CO 2 in seedlings of five boreal tree species. New Phytologist, 1998, 140, 197-210.	3.5	62
100	Growth and physiology of Picea abies populations from elevational transects: common garden evidence for altitudinal ecotypes and cold adaptation. Functional Ecology, 1998, 12, 573-590.	1.7	291
101	Adaptation to changing environment in Scots pine populations across a latitudinal gradient. Silva Fennica, 1998, 32, .	0.5	67
102	Mycorrhizal status of a Scots pine (Pinus sylvestris L.) plantation affected by pollution from a phosphate fertilizer plant. Water, Air, and Soil Pollution, 1995, 85, 1281-1286.	1.1	12
103	Interaction of ozone pollution and light effects on photosynthesis in a forest canopy experiment. Plant, Cell and Environment, 1995, 18, 895-905.	2.8	135
104	Seed mass effects on germination and growth of diverse European Scots pine populations. Canadian Journal of Forest Research, 1994, 24, 306-320.	0.8	68
105	Relationship of aluminium and calcium to net CO2 exchange among diverse Scots pine provenances under pollution stress in Poland. Oecologia, 1994, 97, 82-92.	0.9	48
106	An open-air system for exposing forest-canopy branches to ozone pollution. Plant, Cell and Environment, 1994, 17, 211-218.	2.8	12
107	Relation between genetic diversity and pollution impact in a 1912 experiment with East European Pinussylvestris provenances. Canadian Journal of Forest Research, 1994, 24, 2390-2394.	0.8	39
108	Pollution, Habitat Destruction, and Biodiversity in Poland. Conservation Biology, 1994, 8, 943-960.	2.4	23

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109	Light environment alters response to ozone stress in seedlings of Acer saccharum Marsh, and hybrid Populus L.. New Phytologist, 1993, 124, 627-636.	3.5	70
110	Light environment alters response to ozone stress in seedlings of Acer saccharum Marsh, and hybrid Populus L.. New Phytologist, 1993, 124, 637-646.	3.5	57
111	Light environment alters response to ozone stress in seedlings of Acer saccharum Marsh, and hybrid Populus L.. New Phytologist, 1993, 124, 647-651.	3.5	32
112	Whole-plant CO2 exchange of seedlings of two Pinus sylvestris L. provenances grown under simulated photoperiodic conditions of 50ï¿½ and 60ï¿½ N. Trees - Structure and Function, 1992, 6, 225.	0.9	10
113	Growth and biomass partitioning of populations of European Pinus sylvestris L. under simulated 50o and 60o N daylengths: evidence for photoperiodic ecotypes. New Phytologist, 1992, 120, 561-574.	3.5	100
114	Influence of climatic factors upon tree rings of Larix decidua and L. decidua ï¿½ L. kaempferi from Pulawy, Poland. Trees - Structure and Function, 1991, 5, 75.	0.9	22
115	Mineral content and the sensitivity of black pine (Pinus nigra) of various provenances to industrial air pollution. Forest Ecology and Management, 1987, 21, 237-247.	1.4	6
116	Net photosynthesis, dark respiration and susceptibility to air pollution of 20 European provenances of scots pine Pinus sylvestris L.. Environmental Pollution Series A, Ecological and Biological, 1986, 40, 287-302.	0.8	31
117	Aboveground biomass allocation and accumulation in a chronosequence of young Pinus sylvestris stands growing on a lignite mine spoil heap. Dendrobiology, 0, 72, 139-150.	0.6	25
118	Photosynthetic ecophysiology of evergreen leaves in the woody angiosperms â€“ a review. Dendrobiology, 0, 72, 3-27.	0.6	22