Jacek Oleksyn

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

115 papers	20,990 citations	52 h-index	122 g-index
122 ext. papers	24,228 ext. citations	7.9 avg, IF	6.3 L-index

#	Paper	IF	Citations
115	Anatomical adjustment of mature leaves of sycamore maple (Acer pseudoplatanus L.) to increased irradiance.. *Photosynthesis Research*, **2022**, 1	3.7	0
114	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	11.4	2
113	Axial variability of anatomical structure and the scaling relationships in Scots pine (Pinus sylvestris L.) needles of contrasting origins. *Flora: Morphology, Distribution, Functional Ecology of Plants*, **2021**, 274, 151747	1.9	0
112	Woody tissue photosynthesis delays drought stress in Populus tremula trees and maintains starch reserves in branch xylem tissues. *New Phytologist*, **2020**, 228, 70-81	9.8	10
111	Carbohydrate dynamics in a resprouting species after severe aboveground perturbations. *European Journal of Forest Research*, **2020**, 139, 841-852	2.7	7
110	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	4.2	4
109	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	4.2	7
108	An alternative, portable method for extracting microarthropods from forest soil. *Acta Oecologica*, **2020**, 109, 103655	1.7	0
107	A fingerprint of climate change across pine forests of Sweden. *Ecology Letters*, **2020**, 23, 1739-1746	10	2
106	TReSpire - a biophysical TRee Stem respiration model. *New Phytologist*, **2020**, 225, 2214-2230	9.8	9
105	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	6.2	2
104	Regeneration origin affects radial growth patterns preceding oak decline and death Insights from tree-ring 13C and 18O. *Agricultural and Forest Meteorology*, **2019**, 278, 107685	5.8	12
103	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	4.2	11
102	Biomass and nitrogen distribution ratios reveal a reduced root investment in temperate lianas vs. self-supporting plants. *Annals of Botany*, **2019**, 124, 777-790	4.1	1
101	Species-specific responses of growth and biomass distribution to trellis availability in three temperate lianas. *Trees - Structure and Function*, **2019**, 33, 921-932	2.6	3
100	Functional response of Quercus robur L. to taproot pruning: a 5-year case study. *Annals of Forest Science*, **2018**, 75, 1	3.1	8
99	Soil organic carbon stability in forests: Distinct effects of tree species identity and traits. *Global Change Biology*, **2018**, 25, 1529	11.4	53

98	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	3.9	29
97	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	5	23
96	Cold adaptation drives variability in needle structure and anatomy in Pinus sylvestris L. along a 1,900 km temperate–boreal transect. *Functional Ecology*, **2017**, 31, 2212-2223	5.6	19
95	Drought-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	9.8	42
94	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	11.4	45
93	Positive biodiversity-productivity relationship predominant in global forests. *Science*, **2016**, 354,	33.3	593
92	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	7.5	65
91	Scots pine fine roots adjust along a 2000-km latitudinal climatic gradient. *New Phytologist*, **2016**, 212, 389-99	9.8	65
90	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	3.9	32
89	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	3.8	61
88	How does biomass distribution change with size and differ among species? An analysis for 1200 plant species from five continents. *New Phytologist*, **2015**, 208, 736-49	9.8	153
87	Stem CO2 efflux in six co-occurring tree species: underlying factors and ecological implications. *Plant, Cell and Environment*, **2015**, 38, 1104-15	8.4	26
86	Zanne et al. reply. *Nature*, **2015**, 521, E6-7	50.4	3
85	Carbon allocation in seedlings of deciduous tree species depends on their shade tolerance. *Acta Physiologiae Plantarum*, **2015**, 37, 1	2.6	20
84	Three keys to the radiation of angiosperms into freezing environments. *Nature*, **2014**, 506, 89-92	50.4	896
83	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	3.9	24
82	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, 13703-8	11.5	85
81	Invasive Prunus serotina - a new host for Yponomeuta evonymellus (Lepidoptera: Yponomeutidae)?. *European Journal of Entomology*, **2014**, 111, 227-236		17

80	Aboveground biomass allocation and accumulation in a chronosequence of young Pinus sylvestris stands growing on a lignite mine spoil heap. *Dendrobiology*, **2014**, 72, 139-150		19
79	Photosynthetic ecophysiology of evergreen leaves in the woody angiosperms – a review. *Dendrobiology*, **2014**, 72, 3-27		16
78	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, 13721-6	11.5	187
77	Functional distinctiveness of major plant lineages. *Journal of Ecology*, **2014**, 102, 345-356	6	87
76	Season and light affect constitutive defenses of understory shrub species against folivorous insects. *Acta Oecologica*, **2013**, 53, 19-32	1.7	38
75	Phenotypic correlates of the lianescent growth form: a review. *Annals of Botany*, **2013**, 112, 1667-81	4.1	59
74	What controls the concentration of various aliphatic lipids in soil?. *Soil Biology and Biochemistry*, **2013**, 63, 14-17	7.5	19
73	Ectomycorrhizal fungal communities of native and non-native Pinus and Quercus species in a common garden of 35-year-old trees. *Mycorrhiza*, **2012**, 22, 121-34	3.9	55
72	No globally consistent effect of ectomycorrhizal status on foliar traits. *New Phytologist*, **2012**, 196, 845-852	9.2	65
71	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	2.9	64
70	Tree species effects on coupled cycles of carbon, nitrogen, and acidity in mineral soils at a common garden experiment. *Biogeochemistry*, **2012**, 111, 601-614	3.8	140
69	Differentiating temperate tree species and their organs using lipid biomarkers in leaves, roots and soil. *Organic Geochemistry*, **2012**, 52, 130-141	3.1	47
68	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, 1417-26	2.7	40
67	Lifetime return on investment increases with leaf lifespan among 10 Australian woodland species. *New Phytologist*, **2012**, 193, 409-19	9.8	35
66	Biomass allocation to leaves, stems and roots: meta-analyses of interspecific variation and environmental control. *New Phytologist*, **2012**, 193, 30-50	9.8	1490
65	Do evergreen and deciduous trees have different effects on net N mineralization in soil?. *Ecology*, **2012**, 93, 1463-72	4.6	36
64	TRY – a global database of plant traits. *Global Change Biology*, **2011**, 17, 2905-2935	11.4	1623
63	Decomposition of the finest root branching orders: linking belowground dynamics to fine-root function and structure. *Ecological Monographs*, **2011**, 81, 89-102	9	126

62	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, 877-83	4.4	131
61	Link between defoliation and light treatments on root vitality of five understory shrubs with different resistance to insect herbivory. *Tree Physiology*, **2010**, 30, 969-78	4.2	23
60	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, 648-54	4.2	34
59	Plant host drives fungal phenology. *Fungal Ecology*, **2010**, 3, 311-315	4.1	12
58	Fine root decomposition rates do not mirror those of leaf litter among temperate tree species. *Oecologia*, **2010**, 162, 505-13	2.9	198
57	Leaf phosphorus influences the photosynthesis-nitrogen relation: a cross-biome analysis of 314 species. *Oecologia*, **2009**, 160, 207-12	2.9	225
56	Acclimation of respiratory temperature responses in northern and southern populations of Pinus banksiana. *New Phytologist*, **2009**, 181, 218-229	9.8	81
55	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	9.8	63
54	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	5	68
53	Climate warming will reduce growth and survival of Scots pine except in the far north. *Ecology Letters*, **2008**, 11, 588-97	10	175
52	Scaling of respiration to nitrogen in leaves, stems and roots of higher land plants. *Ecology Letters*, **2008**, 11, 793-801	10	299
51	Coupling of respiration, nitrogen, and sugars underlies convergent temperature acclimation in Pinus banksiana across wide-ranging sites and populations. *Global Change Biology*, **2008**, 14, 782-797	11.4	85
50	Fungal diversity of Norway spruce litter: effects of site conditions and premature leaf fall caused by bark beetle outbreak. *Microbial Ecology*, **2008**, 56, 332-40	4.4	19
49	Does the exception prove the rule? (Reply). *Nature*, **2007**, 445, E10-E11	50.4	11
48	Controls over leaf and litter calcium concentrations among temperate trees. *Biogeochemistry*, **2007**, 86, 175-187	3.8	40
47	Living on the edge: Ecology of an incipient Betula-fungal community growing on brick walls. *Trees - Structure and Function*, **2007**, 21, 239-247	2.6	5
46	Tree Species Effects on Soil Organic Matter Dynamics: The Role of Soil Cation Composition. *Ecosystems*, **2007**, 10, 999-1018	3.9	163
45	Feeding behavior and performance of Neodiprion sertifer larvae reared on Pinus sylvestris needles. *Forest Ecology and Management*, **2007**, 242, 700-707	3.9	13

44	Variation in fine root biomass of three European tree species: Beech (Fagus sylvatica L.), Norway spruce (Picea abies L. Karst.), and Scots pine (Pinus sylvestris L.). *Plant Biosystems*, **2007**, 141, 394-405	1.6	156
43	COMPARISONS OF STRUCTURE AND LIFE SPAN IN ROOTS AND LEAVES AMONG TEMPERATE TREES. *Ecological Monographs*, **2006**, 76, 381-397	9	307
42	Tree species effects on decomposition and forest floor dynamics in a common garden. *Ecology*, **2006**, 87, 2288-97	4.6	407
41	Universal scaling of respiratory metabolism, size and nitrogen in plants. *Nature*, **2006**, 439, 457-61	50.4	388
40	Soil modification by different tree species influences the extent of seedling ectomycorrhizal infection. *Mycorrhiza*, **2006**, 16, 73-79	3.9	32
39	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	2.6	97
38	Assessing the generality of global leaf trait relationships. *New Phytologist*, **2005**, 166, 485-96	9.8	1343
37	Linking litter calcium, earthworms and soil properties: a common garden test with 14 tree species. *Ecology Letters*, **2005**, 8, 811-818	10	483
36	Modulation of leaf economic traits and trait relationships by climate. *Global Ecology and Biogeography*, **2005**, 14, 411-421	6.1	535
35	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	2.6	10
34	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	2	15
33	The worldwide leaf economics spectrum. *Nature*, **2004**, 428, 821-7	50.4	4915
32	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, 11001-6	11.5	1203
31	Nutrient conservation increases with latitude of origin in European Pinus sylvestris populations. *Oecologia*, **2003**, 136, 220-35	2.9	133
30	The impact of material used for minirhizotron tubes for root research. *New Phytologist*, **2003**, 160, 533-544	9.8	62
29	The Evolution of Plant Functional Variation: Traits, Spectra, and Strategies. *International Journal of Plant Sciences*, **2003**, 164, S143-S164	2.6	818
28	Needle nutrients in geographically diverse Pinus sylvestris L. populations. *Annals of Forest Science*, **2002**, 59, 1-18	3.1	47
27	Direct inhibition of leaf dark respiration by elevated CO2 is minor in 12 grassland species. *New Phytologist*, **2001**, 150, 419-424	9.8	31

26	Modelling respiration of vegetation: evidence for a general temperature-dependent Q10. *Global Change Biology*, **2001**, 7, 223-230	11.4	403
25	Biogeographic differences in shoot elongation pattern among European Scots pine populations. *Forest Ecology and Management*, **2001**, 148, 207-220	3.9	30
24	Ontogenetic patterns of leaf CO2 exchange, morphology and chemistry in Betula pendula trees. *Trees - Structure and Function*, **2000**, 14, 271-281	2.6	33
23	Variation in aboveground net primary production of diverse European Pinus sylvestris populations. *Trees - Structure and Function*, **2000**, 14, 415-421	2.6	20
22	Changes in leaf nitrogen and carbohydrates underlie temperature and CO2 acclimation of dark respiration in five boreal tree species. *Plant, Cell and Environment*, **1999**, 22, 767-778	8.4	173
21	Acclimation of respiration to temperature and CO2 in seedlings of boreal tree species in relation to plant size and relative growth rate. *Global Change Biology*, **1999**, 5, 679-691	11.4	189
20	Nutritional Status of Pollen and Needles of Diverse Pinus Sylvestris Populations Grown at Sites with Contrasting Pollution. *Water, Air, and Soil Pollution*, **1999**, 110, 195-212	2.6	17
19	Differential Above- and Below-ground Biomass Accumulation of European Pinus sylvestris Populations in a 12-year-old Provenance Experiment. *Scandinavian Journal of Forest Research*, **1999**, 14, 7-17	1.7	61
18	Temperature and ontogeny mediate growth response to elevated CO in seedlings of five boreal tree species. *New Phytologist*, **1998**, 140, 197-210	9.8	59
17	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	5.6	244
16	Adaptation to changing environment in Scots pine populations across a latitudinal gradient. *Silva Fennica*, **1998**, 32,	1.9	52
15	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	2.6	11
14	Interaction of ozone pollution and light effects on photosynthesis in a forest canopy experiment. *Plant, Cell and Environment*, **1995**, 18, 895-905	8.4	123
13	Seed mass effects on germination and growth of diverse European Scots pine populations. *Canadian Journal of Forest Research*, **1994**, 24, 306-320	1.9	55
12	Relationship of aluminium and calcium to net CO exchange among diverse Scots pine provenances under pollution stress in Poland. *Oecologia*, **1994**, 97, 82-92	2.9	40
11	An open-air system for exposing forest-canopy branches to ozone pollution. *Plant, Cell and Environment*, **1994**, 17, 211-218	8.4	11
10	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	1.9	33
9	Pollution, Habitat Destruction, and Biodiversity in Poland. *Conservation Biology*, **1994**, 8, 943-960	6	21

8	Light environment alters response to ozone stress in seedlings of Acer saccharum Marsh, and hybrid Populus L.: I. In situ net photosynthesis, dark respiration and growth. *New Phytologist*, **1993**, 124, 627-636	9.8	66
7	Light environment alters response to ozone stress in seedlings of Acer saccharum Marsh, and hybrid Populus L.: II. Diagnostic gas exchange and leaf chemistry. *New Phytologist*, **1993**, 124, 637-646	9.8	49
6	Light environment alters response to ozone stress in seedlings of Acer saccharum Marsh, and hybrid Populus L.: III. Consequences for performance of gypsy moth. *New Phytologist*, **1993**, 124, 647-651	9.8	31
5	Whole-plant CO2 exchange of seedlings of two Pinus sylvestris L. provenances grown under simulated photoperiodic conditions of 50° and 60° N. *Trees - Structure and Function*, **1992**, 6, 225	2.6	6
4	Growth and biomass partitioning of populations of European Pinus sylvestris L. under simulated 50° and 60° N daylengths: evidence for photoperiodic ecotypes. *New Phytologist*, **1992**, 120, 561-574	9.8	86
3	Influence of climatic factors upon tree rings of Larix decidua and L. decidua × L. kaempferi from Pulawy, Poland. *Trees - Structure and Function*, **1991**, 5, 75	2.6	17
2	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	3.9	6
1	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		21