

List of Publications by Citations

Source: <https://exaly.com/author-pdf/5542744/jacek-oleksyn-publications-by-citations.pdf>
Version: 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
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	The worldwide leaf economics spectrum. <i>Nature</i> , 2004 , 428, 821-7	50.4	4915
114	TRY is a global database of plant traits. <i>Global Change Biology</i> , 2011 , 17, 2905-2935	11.4	1623
113	Biomass allocation to leaves, stems and roots: meta-analyses of interspecific variation and environmental control. <i>New Phytologist</i> , 2012 , 193, 30-50	9.8	1490
112	Assessing the generality of global leaf trait relationships. <i>New Phytologist</i> , 2005 , 166, 485-96	9.8	1343
111	Global patterns of plant leaf N and P in relation to temperature and latitude. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 11001-6	11.5	1203
110	Three keys to the radiation of angiosperms into freezing environments. <i>Nature</i> , 2014 , 506, 89-92	50.4	896
109	The Evolution of Plant Functional Variation: Traits, Spectra, and Strategies. <i>International Journal of Plant Sciences</i> , 2003 , 164, S143-S164	2.6	818
108	Positive biodiversity-productivity relationship predominant in global forests. <i>Science</i> , 2016 , 354,	33.3	593
107	Modulation of leaf economic traits and trait relationships by climate. <i>Global Ecology and Biogeography</i> , 2005 , 14, 411-421	6.1	535
106	Linking litter calcium, earthworms and soil properties: a common garden test with 14 tree species. <i>Ecology Letters</i> , 2005 , 8, 811-818	10	483
105	Tree species effects on decomposition and forest floor dynamics in a common garden. <i>Ecology</i> , 2006 , 87, 2288-97	4.6	407
104	Modelling respiration of vegetation: evidence for a general temperature-dependent Q10. <i>Global Change Biology</i> , 2001 , 7, 223-230	11.4	403
103	Universal scaling of respiratory metabolism, size and nitrogen in plants. <i>Nature</i> , 2006 , 439, 457-61	50.4	388
102	COMPARISONS OF STRUCTURE AND LIFE SPAN IN ROOTS AND LEAVES AMONG TEMPERATE TREES. <i>Ecological Monographs</i> , 2006 , 76, 381-397	9	307
101	Scaling of respiration to nitrogen in leaves, stems and roots of higher land plants. <i>Ecology Letters</i> , 2008 , 11, 793-801	10	299
100	Growth and physiology of <i>Picea abies</i> populations from elevational transects: common garden evidence for altitudinal ecotypes and cold adaptation. <i>Functional Ecology</i> , 1998 , 12, 573-590	5.6	244
99	Leaf phosphorus influences the photosynthesis-nitrogen relation: a cross-biome analysis of 314 species. <i>Oecologia</i> , 2009 , 160, 207-12	2.9	225

98	Fine root decomposition rates do not mirror those of leaf litter among temperate tree species. <i>Oecologia</i> , 2010 , 162, 505-13	2.9	198
97	Acclimation of respiration to temperature and CO ₂ in seedlings of boreal tree species in relation to plant size and relative growth rate. <i>Global Change Biology</i> , 1999 , 5, 679-691	11.4	189
96	Temperature drives global patterns in forest biomass distribution in leaves, stems, and roots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 13721-6	11.5	187
95	Climate warming will reduce growth and survival of Scots pine except in the far north. <i>Ecology Letters</i> , 2008 , 11, 588-97	10	175
94	Changes in leaf nitrogen and carbohydrates underlie temperature and CO ₂ acclimation of dark respiration in five boreal tree species. <i>Plant, Cell and Environment</i> , 1999 , 22, 767-778	8.4	173
93	Tree Species Effects on Soil Organic Matter Dynamics: The Role of Soil Cation Composition. <i>Ecosystems</i> , 2007 , 10, 999-1018	3.9	163
92	Variation in fine root biomass of three European tree species: Beech (<i>Fagus sylvatica</i> L.), Norway spruce (<i>Picea abies</i> L. Karst.), and Scots pine (<i>Pinus sylvestris</i> L.). <i>Plant Biosystems</i> , 2007 , 141, 394-405	1.6	156
91	How does biomass distribution change with size and differ among species? An analysis for 1200 plant species from five continents. <i>New Phytologist</i> , 2015 , 208, 736-49	9.8	153
90	Tree species effects on coupled cycles of carbon, nitrogen, and acidity in mineral soils at a common garden experiment. <i>Biogeochemistry</i> , 2012 , 111, 601-614	3.8	140
89	Nutrient conservation increases with latitude of origin in European <i>Pinus sylvestris</i> populations. <i>Oecologia</i> , 2003 , 136, 220-35	2.9	133
88	Evidence of a general 2/3-power law of scaling leaf nitrogen to phosphorus among major plant groups and biomes. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2010 , 277, 877-83	4.4	131
87	Decomposition of the finest root branching orders: linking belowground dynamics to fine-root function and structure. <i>Ecological Monographs</i> , 2011 , 81, 89-102	9	126
86	Interaction of ozone pollution and light effects on photosynthesis in a forest canopy experiment. <i>Plant, Cell and Environment</i> , 1995 , 18, 895-905	8.4	123
85	Interannual growth response of Norway spruce to climate along an altitudinal gradient in the Tatra Mountains, Poland. <i>Trees - Structure and Function</i> , 2006 , 20, 735-746	2.6	97
84	Functional distinctiveness of major plant lineages. <i>Journal of Ecology</i> , 2014 , 102, 345-356	6	87
83	Growth and biomass partitioning of populations of European <i>Pinus sylvestris</i> L. under simulated 50% and 60% N daylengths: evidence for photoperiodic ecotypes. <i>New Phytologist</i> , 1992 , 120, 561-574	9.8	86
82	Biogeographic variation in evergreen conifer needle longevity and impacts on boreal forest carbon cycle projections. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 13703-8	11.5	85
81	Coupling of respiration, nitrogen, and sugars underlies convergent temperature acclimation in <i>Pinus banksiana</i> across wide-ranging sites and populations. <i>Global Change Biology</i> , 2008 , 14, 782-797	11.4	85

80	Acclimation of respiratory temperature responses in northern and southern populations of <i>Pinus banksiana</i> . <i>New Phytologist</i> , 2009 , 181, 218-229	9.8	81
79	Overstorey tree species regulate colonization by native and exotic plants: a source of positive relationships between understorey diversity and invasibility. <i>Diversity and Distributions</i> , 2008 , 14, 666-675	5	68
78	Light environment alters response to ozone stress in seedlings of <i>Acer saccharum</i> Marsh, and hybrid <i>Populus L.</i> : I. In situ net photosynthesis, dark respiration and growth. <i>New Phytologist</i> , 1993 , 124, 627-636	9.8	66
77	Light, earthworms, and soil resources as predictors of diversity of 10 soil invertebrate groups across monocultures of 14 tree species. <i>Soil Biology and Biochemistry</i> , 2016 , 92, 184-198	7.5	65
76	No globally consistent effect of ectomycorrhizal status on foliar traits. <i>New Phytologist</i> , 2012 , 196, 845-858	5.2	65
75	Scots pine fine roots adjust along a 2000-km latitudinal climatic gradient. <i>New Phytologist</i> , 2016 , 212, 389-99	9.8	65
74	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. <i>Oecologia</i> , 2012 , 170, 11-24	2.9	64
73	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?. <i>New Phytologist</i> , 2009 , 183, 153-166	9.8	63
72	The impact of material used for minirhizotron tubes for root research. <i>New Phytologist</i> , 2003 , 160, 533-548	4.8	62
71	Effects of litter traits, soil biota, and soil chemistry on soil carbon stocks at a common garden with 14 tree species. <i>Biogeochemistry</i> , 2015 , 123, 313-327	3.8	61
70	Differential Above- and Below-ground Biomass Accumulation of European <i>Pinus sylvestris</i> Populations in a 12-year-old Provenance Experiment. <i>Scandinavian Journal of Forest Research</i> , 1999 , 14, 7-17	1.7	61
69	Phenotypic correlates of the lianescent growth form: a review. <i>Annals of Botany</i> , 2013 , 112, 1667-81	4.1	59
68	Temperature and ontogeny mediate growth response to elevated CO in seedlings of five boreal tree species. <i>New Phytologist</i> , 1998 , 140, 197-210	9.8	59
67	Ectomycorrhizal fungal communities of native and non-native <i>Pinus</i> and <i>Quercus</i> species in a common garden of 35-year-old trees. <i>Mycorrhiza</i> , 2012 , 22, 121-34	3.9	55
66	Seed mass effects on germination and growth of diverse European Scots pine populations. <i>Canadian Journal of Forest Research</i> , 1994 , 24, 306-320	1.9	55
65	Soil organic carbon stability in forests: Distinct effects of tree species identity and traits. <i>Global Change Biology</i> , 2018 , 25, 1529	11.4	53
64	Adaptation to changing environment in Scots pine populations across a latitudinal gradient. <i>Silva Fennica</i> , 1998 , 32,	1.9	52
63	Light environment alters response to ozone stress in seedlings of <i>Acer saccharum</i> Marsh, and hybrid <i>Populus L.</i> : II. Diagnostic gas exchange and leaf chemistry. <i>New Phytologist</i> , 1993 , 124, 637-646	9.8	49

62	Differentiating temperate tree species and their organs using lipid biomarkers in leaves, roots and soil. <i>Organic Geochemistry</i> , 2012 , 52, 130-141	3.1	47
61	Needle nutrients in geographically diverse <i>Pinus sylvestris</i> L. populations. <i>Annals of Forest Science</i> , 2002 , 59, 1-18	3.1	47
60	Patterns of structural and defense investments in fine roots of Scots pine (<i>Pinus sylvestris</i> L.) across a strong temperature and latitudinal gradient in Europe. <i>Global Change Biology</i> , 2017 , 23, 1218-1231	11.4	45
59	Drought-induced shoot dieback starts with massive root xylem embolism and variable depletion of nonstructural carbohydrates in seedlings of two tree species. <i>New Phytologist</i> , 2017 , 213, 597-610	9.8	42
58	Avoiding transport bottlenecks in an expanding root system: xylem vessel development in fibrous and pioneer roots under field conditions. <i>American Journal of Botany</i> , 2012 , 99, 1417-26	2.7	40
57	Controls over leaf and litter calcium concentrations among temperate trees. <i>Biogeochemistry</i> , 2007 , 86, 175-187	3.8	40
56	Relationship of aluminium and calcium to net CO exchange among diverse Scots pine provenances under pollution stress in Poland. <i>Oecologia</i> , 1994 , 97, 82-92	2.9	40
55	Season and light affect constitutive defenses of understory shrub species against folivorous insects. <i>Acta Oecologica</i> , 2013 , 53, 19-32	1.7	38
54	Do evergreen and deciduous trees have different effects on net N mineralization in soil?. <i>Ecology</i> , 2012 , 93, 1463-72	4.6	36
53	Lifetime return on investment increases with leaf lifespan among 10 Australian woodland species. <i>New Phytologist</i> , 2012 , 193, 409-19	9.8	35
52	Ectomycorrhizal identity determines respiration and concentrations of nitrogen and non-structural carbohydrates in root tips: a test using <i>Pinus sylvestris</i> and <i>Quercus robur</i> saplings. <i>Tree Physiology</i> , 2010 , 30, 648-54	4.2	34
51	Ontogenetic patterns of leaf CO ₂ exchange, morphology and chemistry in <i>Betula pendula</i> trees. <i>Trees - Structure and Function</i> , 2000 , 14, 271-281	2.6	33
50	Relation between genetic diversity and pollution impact in a 1912 experiment with East European <i>Pinus sylvestris</i> provenances. <i>Canadian Journal of Forest Research</i> , 1994 , 24, 2390-2394	1.9	33
49	Soil modification by different tree species influences the extent of seedling ectomycorrhizal infection. <i>Mycorrhiza</i> , 2006 , 16, 73-79	3.9	32
48	Unearthing the roots of degradation of <i>Quercus pyrenaica</i> coppices: A root-to-shoot imbalance caused by historical management?. <i>Forest Ecology and Management</i> , 2016 , 363, 200-211	3.9	32
47	Direct inhibition of leaf dark respiration by elevated CO ₂ is minor in 12 grassland species. <i>New Phytologist</i> , 2001 , 150, 419-424	9.8	31
46	Light environment alters response to ozone stress in seedlings of <i>Acer saccharum</i> Marsh, and hybrid <i>Populus</i> L.: III. Consequences for performance of gypsy moth. <i>New Phytologist</i> , 1993 , 124, 647-651	9.8	31
45	Biogeographic differences in shoot elongation pattern among European Scots pine populations. <i>Forest Ecology and Management</i> , 2001 , 148, 207-220	3.9	30

44	Accumulation of particulate matter, heavy metals, and polycyclic aromatic hydrocarbons on the leaves of <i>Tilia cordata</i> Mill. in five Polish cities with different levels of air pollution. <i>International Journal of Phytoremediation</i> , 2017 , 19, 1134-1141	3.9	29
43	Stem CO ₂ efflux in six co-occurring tree species: underlying factors and ecological implications. <i>Plant, Cell and Environment</i> , 2015 , 38, 1104-15	8.4	26
42	The silent shareholder in deterioration of oak growth: common planting practices affect the long-term response of oaks to periodic drought. <i>Forest Ecology and Management</i> , 2014 , 318, 133-141	3.9	24
41	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. <i>Diversity and Distributions</i> , 2017 , 23, 540-555	5	23
40	Link between defoliation and light treatments on root vitality of five understory shrubs with different resistance to insect herbivory. <i>Tree Physiology</i> , 2010 , 30, 969-78	4.2	23
39	Pollution, Habitat Destruction, and Biodiversity in Poland. <i>Conservation Biology</i> , 1994 , 8, 943-960	6	21
38	Net photosynthesis, dark respiration and susceptibility to air pollution of 20 European provenances of scots pine <i>Pinus sylvestris</i> L.. <i>Environmental Pollution Series A, Ecological and Biological</i> , 1986 , 40, 287-302		21
37	Carbon allocation in seedlings of deciduous tree species depends on their shade tolerance. <i>Acta Physiologiae Plantarum</i> , 2015 , 37, 1	2.6	20
36	Variation in aboveground net primary production of diverse European <i>Pinus sylvestris</i> populations. <i>Trees - Structure and Function</i> , 2000 , 14, 415-421	2.6	20
35	Cold adaptation drives variability in needle structure and anatomy in <i>Pinus sylvestris</i> L. along a 1,900 km temperate-boreal transect. <i>Functional Ecology</i> , 2017 , 31, 2212-2223	5.6	19
34	Aboveground biomass allocation and accumulation in a chronosequence of young <i>Pinus sylvestris</i> stands growing on a lignite mine spoil heap. <i>Dendrobiology</i> , 2014 , 72, 139-150		19
33	What controls the concentration of various aliphatic lipids in soil?. <i>Soil Biology and Biochemistry</i> , 2013 , 63, 14-17	7.5	19
32	Fungal diversity of Norway spruce litter: effects of site conditions and premature leaf fall caused by bark beetle outbreak. <i>Microbial Ecology</i> , 2008 , 56, 332-40	4.4	19
31	Invasive <i>Prunus serotina</i> - a new host for <i>Yponomeuta evonymellus</i> (Lepidoptera: Yponomeutidae)?. <i>European Journal of Entomology</i> , 2014 , 111, 227-236		17
30	Nutritional Status of Pollen and Needles of Diverse <i>Pinus Sylvestris</i> Populations Grown at Sites with Contrasting Pollution. <i>Water, Air, and Soil Pollution</i> , 1999 , 110, 195-212	2.6	17
29	Influence of climatic factors upon tree rings of <i>Larix decidua</i> and <i>L. decidua</i> L. <i>kaempferi</i> from Pulawy, Poland. <i>Trees - Structure and Function</i> , 1991 , 5, 75	2.6	17
28	Photosynthetic ecophysiology of evergreen leaves in the woody angiosperms - a review. <i>Dendrobiology</i> , 2014 , 72, 3-27		16
27	Light conditions alter accumulation of long chain polyprenols in leaves of trees and shrubs throughout the vegetation season.. <i>Acta Biochimica Polonica</i> , 2005 , 52, 233-241	2	15

26	Feeding behavior and performance of Neodiprion sertifer larvae reared on Pinus sylvestris needles. <i>Forest Ecology and Management</i> , 2007 , 242, 700-707	3.9	13
25	Regeneration origin affects radial growth patterns preceding oak decline and death Insights from tree-ring $\delta^{13}C$ and $\delta^{18}O$. <i>Agricultural and Forest Meteorology</i> , 2019 , 278, 107685	5.8	12
24	Plant host drives fungal phenology. <i>Fungal Ecology</i> , 2010 , 3, 311-315	4.1	12
23	Does climate-related in situ variability of Scots pine (Pinus sylvestris L.) needles have a genetic basis? Evidence from common garden experiments. <i>Tree Physiology</i> , 2019 , 39, 573-589	4.2	11
22	Does the exception prove the rule? (Reply). <i>Nature</i> , 2007 , 445, E10-E11	50.4	11
21	Mycorrhizal status of a Scots pine (Pinus sylvestris L.) plantation affected by pollution from a phosphate fertilizer plant. <i>Water, Air, and Soil Pollution</i> , 1995 , 85, 1281-1286	2.6	11
20	An open-air system for exposing forest-canopy branches to ozone pollution. <i>Plant, Cell and Environment</i> , 1994 , 17, 211-218	8.4	11
19	Woody tissue photosynthesis delays drought stress in Populus tremula trees and maintains starch reserves in branch xylem tissues. <i>New Phytologist</i> , 2020 , 228, 70-81	9.8	10
18	Differential reaction of Pinus sylvestris, quercus robur and Q. petraea trees to nitrogen and sulfur pollution. <i>Water, Air, and Soil Pollution</i> , 2005 , 160, 95-108	2.6	10
17	TReSpire - a biophysical TRee Stem respiration model. <i>New Phytologist</i> , 2020 , 225, 2214-2230	9.8	9
16	Functional response of Quercus robur L. to taproot pruning: a 5-year case study. <i>Annals of Forest Science</i> , 2018 , 75, 1	3.1	8
15	Carbohydrate dynamics in a resprouting species after severe aboveground perturbations. <i>European Journal of Forest Research</i> , 2020 , 139, 841-852	2.7	7
14	Fine root classification matters: nutrient levels in different functional categories, orders and diameters of roots in boreal Pinus sylvestris across a latitudinal gradient. <i>Plant and Soil</i> , 2020 , 447, 507-520	4.2	7
13	Whole-plant CO ₂ exchange of seedlings of two Pinus sylvestris L. provenances grown under simulated photoperiodic conditions of 50% and 60% N. <i>Trees - Structure and Function</i> , 1992 , 6, 225	2.6	6
12	Mineral content and the sensitivity of black pine (Pinus nigra) of various provenances to industrial air pollution. <i>Forest Ecology and Management</i> , 1987 , 21, 237-247	3.9	6
11	Living on the edge: Ecology of an incipient Betula-fungal community growing on brick walls. <i>Trees - Structure and Function</i> , 2007 , 21, 239-247	2.6	5
10	Woody tissue photosynthesis increases radial stem growth of young poplar trees under ambient atmospheric CO ₂ but its contribution ceases under elevated CO ₂ . <i>Tree Physiology</i> , 2020 , 40, 1572-1582	4.2	4
9	Species-specific responses of growth and biomass distribution to trellis availability in three temperate lianas. <i>Trees - Structure and Function</i> , 2019 , 33, 921-932	2.6	3

8	Zanne et al. reply. <i>Nature</i> , 2015 , 521, E6-7	50.4	3
7	A fingerprint of climate change across pine forests of Sweden. <i>Ecology Letters</i> , 2020 , 23, 1739-1746	10	2
6	Higher biomass partitioning to absorptive roots improves needle nutrition but does not alleviate stomatal limitation of northern Scots pine. <i>Global Change Biology</i> , 2021 , 27, 3859-3869	11.4	2
5	Remarkable Similarity in Timing of Absorptive Fine-Root Production Across 11 Diverse Temperate Tree Species in a Common Garden. <i>Frontiers in Plant Science</i> , 2020 , 11, 623722	6.2	2
4	Biomass and nitrogen distribution ratios reveal a reduced root investment in temperate lianas vs. self-supporting plants. <i>Annals of Botany</i> , 2019 , 124, 777-790	4.1	1
3	Anatomical adjustment of mature leaves of sycamore maple (<i>Acer pseudoplatanus</i> L.) to increased irradiance.. <i>Photosynthesis Research</i> , 2022 , 1	3.7	0
2	An alternative, portable method for extracting microarthropods from forest soil. <i>Acta Oecologica</i> , 2020 , 109, 103655	1.7	0
1	Axial variability of anatomical structure and the scaling relationships in Scots pine (<i>Pinus sylvestris</i> L.) needles of contrasting origins. <i>Flora: Morphology, Distribution, Functional Ecology of Plants</i> , 2021 , 274, 151747	1.9	0