Stan D Wullschleger

List of Publications by Year
in descending order

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178	12,342	23302	29795
papers	citations	58 h-index	104 g-index

183	183	183	15257
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biochemical Limitations to Carbon Assimilation in C3Plantsâ€"A Retrospective Analysis of theA/CiCurves from 109 Species. Journal of Experimental Botany, 1993, 44, 907-920.	4.9	966
2	A comparison of methods for determining forest evapotranspiration and its components: sap-flow, soil water budget, eddy covariance and catchment water balance. Agricultural and Forest Meteorology, 2001, 106, 153-168.	4.8	635
3	A review of whole-plant water use studies in tree. Tree Physiology, 1998, 18, 499-512.	3.2	511
4	The relationship of leaf photosynthetic traits â€“ V_{cmax} and J_{max} â€“ to leaf nitrogen, leaf phosphorus, and specific leaf area: a metaâ€analysis and modeling study. Ecology and Evolution, 2014, 4, 3218-3235.	1.9	356
5	Photosynthetic acclimation in trees to rising atmospheric CO2: A broader perspective. Photosynthesis Research, 1994, 39, 369-388.	2.9	346
6	Productivity and compensatory responses of yellow-poplar trees in elevated C02. Nature, 1992, 357, 322-324.	36.2	343
7	The unseen iceberg: plant roots in arctic tundra. New Phytologist, 2015, 205, 34-58.	7.8	273
8	Application of genomics-assisted breeding for generation of climate resilient crops: progress and prospects. Frontiers in Plant Science, 2015, 6, 563.	3.8	252
9	Plant functional types in Earth system models: past experiences and future directions for application of dynamic vegetation models in high-latitude ecosystems. Annals of Botany, 2014, 114, 1-16.	2.9	251
10	Root structural and functional dynamics in terrestrial biosphere models â€“ evaluation and recommendations. New Phytologist, 2015, 205, 59-78.	7.8	230
11	A roadmap for research on crassulacean acid metabolism (<scp>CAM</scp>) to enhance sustainable food and bioenergy production in a hotter, drier world. New Phytologist, 2015, 207, 491-504.	7.8	219
12	Direct and indirect effects of atmospheric conditions and soil moisture on surface energy partitioning revealed by a prolonged drought at a temperate forest site. Journal of Geophysical Research, 2006, 111, .	3.3	194
13	Transpiration from a multi-species deciduous forest as estimated by xylem sap flow techniques. Forest Ecology and Management, 2001, 143, 205-213.	3.3	193
14	Reliable estimation of biochemical parameters from C₃ leaf photosynthesisâ€“intercellular carbon dioxide response curves. Plant, Cell and Environment, 2010, 33, 1852-1874.	6.0	187
15	Acclimation of photosynthesis and respiration to simulated climatic warming in northern and southern populations of Acer saccharum: laboratory and field evidence. Tree Physiology, 2000, 20, 87-96.	3.2	186
16	Sensitivity of stomatal and canopy conductance to elevated CO 2 concentrationÂâ€“Âinteracting variables and perspectives of scale. New Phytologist, 2002, 153, 485-496.	7.8	160
17	Microbes in thawing permafrost: the unknown variable in the climate change equation. ISME Journal, 2012, 6, 709-712.	10.0	157
18	Genomics and Forest Biology. Plant Cell, 2002, 14, 2651-2655.	6.7	155

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19	Elevated CO2 enhances leaf senescence during extreme drought in a temperate forest. Tree Physiology, 2011, 31, 117-130.	3.2	154
20	Phytosequestration: Carbon Biosequestration by Plants and the Prospects of Genetic Engineering. BioScience, 2010, 60, 685-696.	4.8	153
21	Radial variation in sap velocity as a function of stem diameter and sapwood thickness in yellow-poplar trees. Tree Physiology, 2000, 20, 511-518.	3.2	144
22	Analysis of preservative-treated wood by multivariate analysis of laser-induced breakdown spectroscopy spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 1179-1185.	2.9	142
23	Phenotypic variation in growth and biomass distribution for two advanced-generation pedigrees of hybrid poplar. Canadian Journal of Forest Research, 2005, 35, 1779-1789.	1.8	137
24	ATMOSPHERE: Plant Respiration in a Warmer World. Science, 2006, 312, 536-537.	20.9	137
25	The Potential Response of Terrestrial Carbon Storage to Changes in Climate and Atmospheric CO2. Climatic Change, 1997, 35, 199-227.	3.7	128
26	Differential priming of soil carbon driven by soil depth and root impacts on carbon availability. Soil Biology and Biochemistry, 2014, 69, 147-156.	9.0	113
27	NET PRIMARY PRODUCTIVITY OF A CO2-ENRICHED DECIDUOUS FOREST AND THE IMPLICATIONS FOR CARBON STORAGE. Ecological Applications, 2002, 12, 1261-1266.	3.9	110
28	Respiratory responses of higher plants to atmospheric CO2 enrichment. Physiologia Plantarum, 1994, 90, 221-229.	5.3	108
29	Reviews and syntheses: Four decades of modeling methane cycling in terrestrial ecosystems. Biogeosciences, 2016, 13, 3735-3755.	3.4	107
30	Connecting genes, coexpression modules, and molecular signatures to environmental stress phenotypes in plants. BMC Systems Biology, 2008, 2, 16.	2.9	103
31	Sap velocity and canopy transpiration in a sweetgum stand exposed to free-air CO2 enrichment (FACE). New Phytologist, 2001, 150, 489-498.	7.8	102
32	Toward a Mechanistic Modeling of Nitrogen Limitation on Vegetation Dynamics. PLoS ONE, 2012, 7, e37914.	2.5	100
33	Ecohydrologic impact of reduced stomatal conductance in forests exposed to elevated CO₂. Ecohydrology, 2011, 4, 196-210.	2.4	97
34	Globalâ€scale environmental control of plant photosynthetic capacity. Ecological Applications, 2015, 25, 2349-2365.	3.9	95
35	Laser-induced breakdown spectroscopy for the environmental determination of total carbon and nitrogen in soils. Applied Optics, 2003, 42, 2072.	2.1	92
36	High resolution applications of laser-induced breakdown spectroscopy for environmental and forensic applications. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 1426-1432.	2.9	92

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37	Sensitivity of canopy transpiration to altered precipitation in an upland oak forest: evidence from a long-term field manipulation study. Global Change Biology, 2006, 12, 97-109.	9.7	88
38	Leaf respiration at different canopy positions in sweetgum (Liquidambar styraciflua) grown in ambient and elevated concentrations of carbon dioxide in the field. Tree Physiology, 2002, 22, 1157-1166.	3.2	87
39	Measuring stem water content in four deciduous hardwoods with a time-domain reflectometer. Tree Physiology, 1996, 16, 809-815.	3.2	85
40	Indexing Permafrost Soil Organic Matter Degradation Using High-Resolution Mass Spectrometry. PLoS ONE, 2015, 10, e0130557.	2.5	84
41	Importance of changing CO2, temperature, precipitation, and ozone on carbon and water cycles of an upland-oak forest: incorporating experimental results into model simulations. Global Change Biology, 2005, 11, 1402-1423.	9.7	83
42	Molecular Insights into Arctic Soil Organic Matter Degradation under Warming. Environmental Science & Technology, 2018, 52, 4555-4564.	10.5	83
43	Bioenergy crop models: descriptions, data requirements, and future challenges. GCB Bioenergy, 2012, 4, 620-633.	5.7	82
44	Variation in root architecture among switchgrass cultivars impacts root decomposition rates. Soil Biology and Biochemistry, 2013, 58, 198-206.	9.0	81
45	Increased growth efficiency of Quercus alba trees in a CO 2 â€enriched atmosphere. New Phytologist, 1995, 131, 91-97.	7.8	80
46	The impacts of recent permafrost thaw on landâ€“atmosphere greenhouse gas exchange. Environmental Research Letters, 2014, 9, 045005.	5.3	77
47	Environmental controls on water use efficiency during severe drought in an Ozark Forest in Missouri, USA. Global Change Biology, 2010, 16, 2252-2271.	9.7	76
48	Comparative physiology and transcriptional networks underlying the heat shock response in Populus trichocarpa, Arabidopsis thaliana and Glycine max. Plant, Cell and Environment, 2011, 34, 1488-1506.	6.0	72
49	Stoichiometry and temperature sensitivity of methanogenesis and <scp>CO</scp>₂ production from saturated polygonal tundra in Barrow, Alaska. Global Change Biology, 2015, 21, 722-737.	9.7	72
50	Active layer hydrology in an arctic tundra ecosystem: quantifying water sources and cycling using water stable isotopes. Hydrological Processes, 2016, 30, 4972-4986.	2.6	72
51	Historical variations in terrestrial biospheric carbon storage. Global Biogeochemical Cycles, 1997, 11, 99-109.	4.8	70
52	Novel Multivariate Analysis for Soil Carbon Measurements Using Laserâ€Induced Breakdown Spectroscopy. Soil Science Society of America Journal, 2010, 74, 87-93.	2.5	70
53	Respiratory cost of leaf growth and maintenance in white oak saplings exposed to atmospheric CO₂ enrichment. Canadian Journal of Forest Research, 1992, 22, 1717-1721.	1.8	67
54	Warming increases methylmercury production in an Arctic soil. Environmental Pollution, 2016, 214, 504-509.	7.7	67

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55	Diel rewiring and positive selection of ancient plant proteins enabled evolution of CAM photosynthesis in Agave. BMC Genomics, 2018, 19, 588.	2.9	66
56	Empirical geographic modeling of switchgrass yields in the United States. GCB Bioenergy, 2010, 2, 248-257.	5.7	64
57	Terrestrial biosphere models underestimate photosynthetic capacity and CO₂ assimilation in the Arctic. New Phytologist, 2017, 216, 1090-1103.	7.8	64
58	Missing pieces to modeling the Arctic-Boreal puzzle. Environmental Research Letters, 2018, 13, 020202.	5.3	64
59	Revisiting the sequencing of the first tree genome: Populus trichocarpa. Tree Physiology, 2013, 33, 357-364.	3.2	63
60	Climateâ€resilient agroforestry: physiological responses to climate change and engineering of crassulacean acid metabolism (<scp>CAM</scp>) as a mitigation strategy. Plant, Cell and Environment, 2015, 38, 1833-1849.	6.0	62
61	Osmotic Adjustment in Cotton (Gossypium hirsutum L.) Leaves and Roots in Response to Water Stress. Plant Physiology, 1987, 84, 1154-1157.	5.1	61
62	A model of heat transfer in sapwood and implications for sap flux density measurements using thermal dissipation probes. Tree Physiology, 2011, 31, 669-679.	3.2	61
63	<scp>S</scp>phagnum physiology in the context of changing climate: emergent influences of genomics, modelling and hostâ€microbiome interactions on understanding ecosystem function. Plant, Cell and Environment, 2015, 38, 1737-1751.	6.0	61
64	Effects of warming on the degradation and production of low-molecular-weight labile organic carbon in an Arctic tundra soil. Soil Biology and Biochemistry, 2016, 95, 202-211.	9.0	59
65	A microbial functional groupâ€based module for simulating methane production and consumption: Application to an incubated permafrost soil. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1315-1333.	3.0	58
66	A comment on â€œAppropriate experimental ecosystem warming methods by ecosystem, objective, and practicalityâ€• by Aronson and McNulty. Agricultural and Forest Meteorology, 2010, 150, 497-498.	4.8	56
67	Geochemical drivers of organic matter decomposition in arctic tundra soils. Biogeochemistry, 2015, 126, 397-414.	3.7	56
68	Whole-plant water flux in understory red maple exposed to altered precipitation regimes. Tree Physiology, 1998, 18, 71-79.	3.2	55
69	Large CO₂ and CH₄ emissions from polygonal tundra during spring thaw in northern Alaska. Geophysical Research Letters, 2017, 44, 504-513.	4.0	55
70	Photosynthesis of individual field-grown cotton leaves during ontogeny. Photosynthesis Research, 1990, 23, 163-170.	2.9	54
71	On the relationship between stomatal characters and atmospheric CO2. Geophysical Research Letters, 2003, 30, .	4.0	54
72	Extrapolating active layer thickness measurements across Arctic polygonal terrain using LiDAR and NDVI data sets. Water Resources Research, 2014, 50, 6339-6357.	4.2	52

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73	Genomic aspects of research involving polyploid plants. Plant Cell, Tissue and Organ Culture, 2011, 104, 387-397.	2.4	50
74	Photosynthetic and Respiratory Activity of Fruiting Forms within the Cotton Canopy. Plant Physiology, 1990, 94, 463-469.	5.1	46
75	Comparing the Performance of Forest gap Models in North America. Climatic Change, 2001, 51, 349-388.	3.7	46
76	Anatomical considerations related to photosynthesis in cotton (Gossypium hirsutumL.) leaves, bracts, and the capsule wall. Journal of Experimental Botany, 1994, 45, 111-118.	4.9	45
77	Influences of biomass heat and biochemical energy storages on the land surface fluxes and radiative temperature. Journal of Geophysical Research, 2007, 112, .	3.3	45
78	Pathways of anaerobic organic matter decomposition in tundra soils from Barrow, Alaska. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2345-2359.	3.0	45
79	Response of â€œAlamoâ€•switchgrass tissue chemistry and biomass to nitrogen fertilization in West Tennessee, USA. Agriculture, Ecosystems and Environment, 2011, 140, 289-297.	5.5	44
80	Poplar Genomics: State of the Science. Critical Reviews in Plant Sciences, 2009, 28, 285-308.	5.8	43
81	A method for experimental heating of intact soil profiles for application to climate change experiments. Global Change Biology, 2011, 17, 1083-1096.	9.7	43
82	Iron (Oxyhydr)Oxides Serve as Phosphate Traps in Tundra and Boreal Peat Soils. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 227-246.	3.0	42
83	Growth and maintenance respiration in stems of Quercus alba after four years of CO2 enrichment. Physiologia Plantarum, 1995, 93, 47-54.	5.3	41
84	Diurnal and seasonal changes in stem increment and water use by yellow poplar trees in response to environmental stress. Tree Physiology, 2003, 23, 1125-1136.	3.2	40
85	Alder Distribution and Expansion Across a Tundra Hillslope: Implications for Local N Cycling. Frontiers in Plant Science, 2019, 10, 1099.	3.8	40
86	Gene expression profiling: opening the black box of plant ecosystem responses to global change. Global Change Biology, 2009, 15, 1201-1213.	9.7	37
87	Mapping Arctic Plant Functional Type Distributions in the Barrow Environmental Observatory Using WorldView-2 and LiDAR Datasets. Remote Sensing, 2016, 8, 733.	4.1	37
88	Tree Responses to Elevated CO2 and Implications for Forests. , 1996, , 1-21.		36
89	Investigation of laser-induced breakdown spectroscopy and multivariate analysis for differentiating inorganic and organic C in a variety of soils. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 87, 100-107.	2.9	36
90	Impacts of temperature and soil characteristics on methane production and oxidation in Arctic tundra. Biogeosciences, 2018, 15, 6621-6635.	3.4	36

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91	Needle age and season influence photosynthetic temperature response and total annual carbon uptake in maturePicea marianatrees. Annals of Botany, 2015, 116, 821-832.	2.9	35
92	Influences of nitrogen fertilization and climate regime on the above-ground biomass yields of miscanthus and switchgrass: A meta-analysis. Renewable and Sustainable Energy Reviews, 2019, 108, 303-311.	16.7	35
93	Biases of CO₂ storage in eddy flux measurements in a forest pertinent to vertical configurations of a profile system and CO₂ density averaging. Journal of Geophysical Research, 2007, 112, .	3.3	34
94	Below-Ground Processes in Gap Models for Simulating Forest Response to Global Change. Climatic Change, 2001, 51, 449-473.	3.7	33
95	High-resolution analysis of stem increment and sap flow for loblolly pine trees attacked by southern pine beetle. Canadian Journal of Forest Research, 2004, 34, 2387-2393.	1.8	33
96	Pathways and transformations of dissolved methane and dissolved inorganic carbon in Arctic tundra watersheds: Evidence from analysis of stable isotopes. Global Biogeochemical Cycles, 2015, 29, 1893-1910.	4.8	32
97	Water Flow Through Cotton Roots in Relation to Xylem Anatomy. Journal of Experimental Botany, 1987, 38, 1866-1874.	4.9	28
98	Modeling the belowground response of plants and soil biota to edaphic and climatic changeâ€"What can we expect to gain?. Plant and Soil, 1994, 165, 149-160.	3.7	28
99	Evidence for Light-Dependent Recycling of Respired Carbon Dioxide by the Cotton Fruit. Plant Physiology, 1991, 97, 574-579.	5.1	27
100	Genomics and the tree physiologist. Tree Physiology, 2002, 22, 1273-1276.	3.2	27
101	Microbial Community and Functional Gene Changes in Arctic Tundra Soils in a Microcosm Warming Experiment. Frontiers in Microbiology, 2017, 8, 1741.	3.6	27
102	A reporting format for leaf-level gas exchange data and metadata. Ecological Informatics, 2021, 61, 101232.	5.3	27
103	The Role of Synthetic Biology in Atmospheric Greenhouse Gas Reduction: Prospects and Challenges. Biodesign Research, 2020, 2020, .	2.2	27
104	Mechanistic Modeling of Microtopographic Impacts on CO₂ and CH₄ Fluxes in an Alaskan Tundra Ecosystem Using the CLMâ€Microbe Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4288-4304.	3.7	26
105	Initial characterization of shade avoidance response suggests functional diversity between Populus phytochrome B genes. New Phytologist, 2012, 196, 726-737.	7.8	25
106	Carbon sequestration via wood harvest and storage: An assessment of its harvest potential. Climatic Change, 2013, 118, 245-257.	3.7	25
107	Functional Genomics of Drought Tolerance in Bioenergy Crops. Critical Reviews in Plant Sciences, 2014, 33, 205-224.	5.8	25
108	Isotopic identification of soil and permafrost nitrate sources in an Arctic tundra ecosystem. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1000-1017.	3.0	24

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109	Guidelines and considerations for designing field experiments simulating precipitation extremes in forest ecosystems. Methods in Ecology and Evolution, 2018, 9, 2310-2325.	5.3	24
110	The occurrence of an internal cuticle in cotton (Gossypium hirsutum L.) leaf stomates. Environmental and Experimental Botany, 1989, 29, 229-235.	4.3	23
111	In search of the missing carbon sink: a model of terrestrial biospheric response to land-use change and atmospheric CO₂. Tellus, Series B: Chemical and Physical Meteorology, 2022, 47, 501.	1.6	23
112	Elemental Analysis of Environmental and Biological Samples Using Laserâ€Induced Breakdown Spectroscopy and Pulsed Raman Spectroscopy. Journal of Dispersion Science and Technology, 2005, 25, 687-694.	2.4	23
113	Biophysical drivers of seasonal variability in Sphagnum gross primary production in a northern temperate bog. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1078-1097.	3.0	23
114	Trait covariance: the functional warp of plant diversity?. New Phytologist, 2017, 216, 976-980.	7.8	23
115	Global simulation of bioenergy crop productivity: analytical framework and case study for switchgrass. GCB Bioenergy, 2014, 6, 14-25.	5.7	22
116	Temperature sensitivity of mineral-enzyme interactions on the hydrolysis of cellobiose and indican by Î²-glucosidase. Science of the Total Environment, 2019, 686, 1194-1201.	8.2	22
117	Modeling anaerobic soil organic carbon decomposition in Arctic polygon tundra: insights into soil geochemical influences on carbon mineralization. Biogeosciences, 2019, 16, 663-680.	3.4	22
118	Effects of harvest management practices on forest biomass and soil carbon in eucalypt forests in New South Wales, Australia: Simulations with the forest succession model LINKAGES. Forest Ecology and Management, 2008, 255, 2407-2415.	3.3	20
119	Differential Detection of Genetic Loci Underlying Stem and Root Lignin Content in Populus. PLoS ONE, 2010, 5, e14021.	2.5	20
120	Remote Monitoring of Freezeâ€“Thaw Transitions in Arctic Soils Using the Complex Resistivity Method. Vadose Zone Journal, 2013, 12, 1-13.	2.4	20
121	Interdisciplinary research in climate and energy sciences. Wiley Interdisciplinary Reviews: Energy and Environment, 2016, 5, 49-56.	4.2	20
122	An Improved Approach for Mapping Quantitative Trait Loci in a Pseudo-Testcross: Revisiting a Poplar Mapping Study. Bioinformatics and Biology Insights, 2010, 4, BBI.S4153.	2.1	18
123	Evaluation of an untargeted nano-liquid chromatography-mass spectrometry approach to expand coverage of low molecular weight dissolved organic matter in Arctic soil. Scientific Reports, 2019, 9, 5810.	3.4	18
124	Canopy Leaf Area Development and Ageâ€Class Dynamics in Cotton. Crop Science, 1992, 32, 451-456.	1.9	17
125	Emerging Use of Gene Expression Microarrays in Plant Physiology. Comparative and Functional Genomics, 2003, 4, 216-224.	2.0	17
126	Evapotranspiration across plant types and geomorphological units in polygonal Arctic tundra. Journal of Hydrology, 2017, 553, 816-825.	5.6	17

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127	Terrestrial biosphere models may overestimate Arctic <scp>CO</scp>₂ assimilation if they do not account for decreased quantum yield and convexity at low temperature. New Phytologist, 2019, 223, 167-179.	7.8	16
128	Plant Biosystems Design Research Roadmap 1.0. Biodesign Research, 2020, 2020, .	2.2	16
129	Simulated Patterns of Forest Succession and Productivity as a Consequence of Altered Precipitation. Ecological Studies, 2003, , 433-446.	0.0	15
130	PopulusResponses to Edaphic and Climatic Cues: Emerging Evidence from Systems Biology Research. Critical Reviews in Plant Sciences, 2009, 28, 368-374.	5.8	14
131	Evaporation dominates evapotranspiration on Alaskaâ€™s Arctic Coastal Plain. Arctic, Antarctic, and Alpine Research, 2018, 50, .	1.2	14
132	Stimulation of anaerobic organic matter decomposition by subsurface organic N addition in tundra soils. Soil Biology and Biochemistry, 2019, 130, 195-204.	9.0	14
133	Estimating the Net Primary and Net Ecosystem Production of a Southeastern Upland Quercus Forest from an 8-Year Biometric Record. Ecological Studies, 2003, , 378-395.	0.0	14
134	Water use efficiency as a function of leaf age and position within the cotton canopy. Plant and Soil, 1989, 120, 79-85.	3.7	13
135	From systems biology to photosynthesis and whole-plant physiology. Plant Signaling and Behavior, 2012, 7, 260-262.	2.4	13
136	Genomics in a changing arctic: critical questions await the molecular ecologist. Molecular Ecology, 2015, 24, 2301-2309.	3.6	13
137	Divergent speciesâ€specific impacts of whole ecosystem warming and elevated CO₂ on vegetation water relations in an ombrotrophic peatland. Global Change Biology, 2021, 27, 1820-1835.	9.7	13
138	Crop Physiology. Green Energy and Technology, 2012, , 55-86.	0.0	13
139	Electron Microscope Study of Cuticular Abrasion on Cotton Leaves in Relation to Water Potential Measurements. Journal of Experimental Botany, 1987, 38, 660-667.	4.9	12
140	Respiratory responses of higher plants to atmospheric CO2 enrichment. Physiologia Plantarum, 1994, 90, 221-229.	5.3	11
141	Belowground Responses to Atmospheric Carbon Dioxide in Forests. , 0, , 397-418.		11
142	Photosynthetic and Respiratory Responses of Two Bog Shrub Species to Whole Ecosystem Warming and Elevated CO2 at the Boreal-Temperate Ecotone. Frontiers in Forests and Global Change, 2019, 2, .	2.5	11
143	Warming induces divergent stomatal dynamics in coâ€occurring boreal trees. Global Change Biology, 2021, 27, 3079-3094.	9.7	11
144	Development of observation-based global multilayer soil moisture products for 1970 to 2016. Earth System Science Data, 2021, 13, 4385-4405.	8.9	11

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145	Integrated Stomatal Opening as an Indicator of Water Stress in Zea1. Crop Science, 1984, 24, 245.	1.9	10
146	Planning the Next Generation of Arctic Ecosystem Experiments. Eos, 2011, 92, 145-145.	0.1	10
147	Forest Trees and Their Response to Atmospheric Carbon Dioxide Enrichment: A Compilation of Results. ASA Special Publication, 0, , 79-100.	0.0	10
148	Unravelling biogeochemical drivers of methylmercury production in an Arctic fen soil and a bog soil. Environmental Pollution, 2022, 299, 118878.	7.7	10
149	Understanding the relative importance of vertical and horizontal flow in ice-wedge polygons. Hydrology and Earth System Sciences, 2020, 24, 1109-1129.	5.0	9
150	Iron and iron-bound phosphate accumulate in surface soils of ice-wedge polygons in arctic tundra. Environmental Sciences: Processes and Impacts, 2020, 22, 1475-1490.	3.4	9
151	Quantifying pH buffering capacity in acidic, organic-rich Arctic soils: Measurable proxies and implications for soil carbon degradation. Geoderma, 2022, 424, 116003.	5.2	9
152	A Rapid Leaf-Disc Sampler for Psychrometric Water Potential Measurements. Plant Physiology, 1986, 81, 684-685.	5.1	8
153	Physiological Response of Rice (Oryza sativa) to Fenoxaprop. Weed Science, 1990, 38, 459-462.	1.8	8
154	Functional genomics and ecology â€“ a tale of two scales. New Phytologist, 2007, 176, 735-739.	7.8	8
155	Characterization of iron oxide nanoparticle films at the airâ€“water interface in Arctic tundra waters. Science of the Total Environment, 2018, 633, 1460-1468.	8.2	8
156	Simulated projections of boreal forest peatland ecosystem productivity are sensitive to observed seasonality in leaf physiologyâ€. Tree Physiology, 2019, 39, 556-572.	3.2	8
157	Net Primary Productivity of a CO 2 -Enriched Deciduous Forest and the Implications for Carbon Storage. , 2002, 12, 1261.		7
158	Climate Change: A Controlled Experiment. Scientific American, 2010, 302, 78-83.	0.0	7
159	Measuring diurnal cycles of evapotranspiration in the Arctic with an automated chamber system. Ecohydrology, 2015, 8, 652-659.	2.4	7
160	Anaerobic respiration pathways and response to increased substrate availability of Arctic wetland soils. Environmental Sciences: Processes and Impacts, 2020, 22, 2070-2083.	3.4	7
161	Application of Emerging Tools and Techniques for Measuring Carbon and Microbial Communities in Reclaimed Mine Soils. Environmental Management, 2004, 33, S518.	2.7	6
162	Modeling the molecular and climatic controls on flowering. New Phytologist, 2012, 194, 599-601.	7.8	6

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163	Integrating empiricalâ€“modeling approaches to improve understanding of terrestrial ecology processes. New Phytologist, 2012, 195, 523-525.	7.8	6
164	Biological Parts for Plant Biodesign to Enhance Land-Based Carbon Dioxide Removal. Biodesign Research, 2021, 2021, .	2.2	6
165	Range shifts in a foundation sedge potentially induce large Arctic ecosystem carbon losses and gains. Environmental Research Letters, 2022, 17, 045024.	5.3	6
166	Forest Water Use and the Influence of Precipitation Change. Ecological Studies, 2003, , 363-377.	0.0	5
167	Plant Biosystems Design for a Carbon-Neutral Bioeconomy. Biodesign Research, 2020, 2020, .	2.2	5
168	Scaling nitrogen and carbon interactions: what are the consequences of biological buffering?. Ecology and Evolution, 2015, 5, 2839-2850.	1.9	4
169	Influences of Hillslope Biogeochemistry on Anaerobic Soil Organic Matter Decomposition in a Tundra Watershed. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005512.	3.0	4
170	Temporal, Spatial, and Temperature Controls on Organic Carbon Mineralization and Methanogenesis in Arctic High-Centered Polygon Soils. Frontiers in Microbiology, 2020, 11, 616518.	3.6	4
171	Modern and Future Forests in a Changing Atmosphere. , 2005, , 394-414.		3
172	Leaf respiration (GlobResp) â€“ global trait database supports Earth System Models. New Phytologist, 2015, 206, 483-485.	7.8	3
173	Sensitivity of Sapling and Mature-Tree Water Use to Altered Precipitation Regimes. Ecological Studies, 2003, , 87-99.	0.0	3
174	High nitrate variability on an Alaskan permafrost hillslope dominated by alder shrubs. Cryosphere, 2022, 16, 1889-1901.	4.0	3
175	Upscaling Methane Flux From Plot Level to Eddy Covariance Tower Domains in Five Alaskan Tundra Ecosystems. Frontiers in Environmental Science, 0, 10, .	3.3	2
176	Extending the Arabidopsis flowering paradigm to a mass flowering phenomenon in the tropics. Molecular Ecology, 2013, 22, 4603-4605.	3.6	1
177	Untargeted Exometabolomics Provides a Powerful Approach to Investigate Biogeochemical Hotspots with Vegetation and Polygon Type in Arctic Tundra Soils. Soil Systems, 2021, 5, 10.	2.7	1
178	Increased Arctic NO3â^' Availability as a Hydrogeomorphic Consequence of Permafrost Degradation and Landscape Drying. Nitrogen, 2022, 3, 314-332.	1.4	1