Paul Hanson

List of Publications by Year
in descending order

197 papers	19,362 citations	11608 70 h-index	12233 133 g-index
230 all docs	230 docs citations	230 times ranked	17008 citing authors

#	Article	IF	Citations
1	Title is missing!. Biogeochemistry, 2000, 48, 115-146.	1.7	1,684
2	Climate Change and Forest Disturbances. BioScience, 2001, 51, 723.	2.2	1,682
3	CO₂ balance of boreal, temperate, and tropical forests derived from a global database. Global Change Biology, 2007, 13, 2509-2537.	4.2	863
4	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.	1.9	626
5	The 2007 Eastern US Spring Freeze: Increased Cold Damage in a Warming World?. BioScience, 2008, 58, 253-262.	2.2	506
6	Evaluation of 11 terrestrial carbonâ€"nitrogen cycle models against observations from two temperate <scp>F</scp>reeâ€<scp>A</scp>ir <scp>CO</scp>₂<scp> E</scp>nrichment studies. New Phytologist, 2014, 202, 803-822.	3.5	378
7	Spatial and seasonal variability of photosynthetic parameters and their relationship to leaf nitrogen in a deciduous forest. Tree Physiology, 2000, 20, 565-578.	1.4	365
8	Belowâ€ground process responses to elevated CO 2 and temperature: a discussion of observations, measurement methods, and models. New Phytologist, 2004, 162, 311-322.	3.5	358
9	Biometric and eddy-covariance based estimates of annual carbon storage in five eastern North American deciduous forests. Agricultural and Forest Meteorology, 2002, 113, 3-19.	1.9	356
10	Drought disturbance from climate change: response of United States forests. Science of the Total Environment, 2000, 262, 205-220.	3.9	354
11	Seasonal and topographic patterns of forest floor CO2 efflux from an upland oak forest. Tree Physiology, 1993, 13, 1-15.	1.4	325
12	Forest water use and water use efficiency at elevated <scp><scp>CO₂</scp></scp>: a modelâ€data intercomparison at two contrasting temperate forest <scp>FACE</scp> sites. Global Change Biology, 2013, 19, 1759-1779.	4.2	314
13	Modeled interactive effects of precipitation, temperature, and [CO₂] on ecosystem carbon and water dynamics in different climatic zones. Global Change Biology, 2008, 14, 1986-1999.	4.2	277
14	Where does the carbon go? A modelâ€"data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest freeâ€air CO₂ enrichment sites. New Phytologist, 2014, 203, 883-899.	3.5	263
15	Belowground carbon allocation in forests estimated from litterfall and IRGA-based soil respiration measurements. Agricultural and Forest Meteorology, 2002, 113, 39-51.	1.9	260
16	Using ecosystem experiments to improve vegetation models. Nature Climate Change, 2015, 5, 528-534.	8.1	249
17	Ecosystem warming extends vegetation activity but heightens vulnerability to cold temperatures. Nature, 2018, 560, 368-371.	13.7	249
18	Leaf age affects the seasonal pattern of photosynthetic capacityand net ecosystem exchange of carbon in a deciduous forest. Plant, Cell and Environment, 2001, 24, 571-583.	2.8	247

#	Article	IF	Citations
19	Air/surface exchange of mercury vapor over forestsâ€"the need for a reassessment of continental biogenic emissions. Atmospheric Environment, 1998, 32, 895-908.	1.9	242
20	Dry deposition of reactive nitrogen compounds: A review of leaf, canopy and non-foliar measurements. Atmospheric Environment Part A General Topics, 1991, 25, 1615-1634.	1.3	241
21	OAK FOREST CARBON AND WATER SIMULATIONS: MODEL INTERCOMPARISONS AND EVALUATIONS AGAINST INDEPENDENT DATA. Ecological Monographs, 2004, 74, 443-489.	2.4	225
22	Root structural and functional dynamics in terrestrial biosphere models â€" evaluation and recommendations. New Phytologist, 2015, 205, 59-78.	3.5	214
23	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	191
24	Effects of altered water regimes on forest root systems. New Phytologist, 2000, 147, 117-129.	3.5	190
25	Transpiration from a multi-species deciduous forest as estimated by xylem sap flow techniques. Forest Ecology and Management, 2001, 143, 205-213.	1.4	188
26	Fineâ€root turnover patterns and their relationship to root diameter and soil depth in a 14 Câ€labeled hardwood forest. New Phytologist, 2006, 172, 523-535.	3.5	181
27	Organic matter transformation in the peat column at Marcell Experimental Forest: Humification and vertical stratification. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 661-675.	1.3	170
28	Initial characterization of processes of soil carbon stabilization using forest stand-level radiocarbon enrichment. Geoderma, 2005, 128, 52-62.	2.3	167
29	Stability of peatland carbon to rising temperatures. Nature Communications, 2016, 7, 13723.	5.8	162
30	Foliar exchange of mercury vapor: Evidence for a compensation point. Water, Air, and Soil Pollution, 1995, 80, 373-382.	1.1	159
31	Sensitivity of stomatal and canopy conductance to elevated CO 2 concentrationÂâ€"Âinteracting variables and perspectives of scale. New Phytologist, 2002, 153, 485-496.	3.5	158
32	Quantifying stomatal and non-stomatal limitations to carbon assimilation resulting from leaf aging and drought in mature deciduous tree species. Tree Physiology, 2000, 20, 787-797.	1.4	157
33	A multiyear synthesis of soil respiration responses to elevated atmospheric CO2 from four forest FACE experiments. Global Change Biology, 2004, 10, 1027-1042.	4.2	155
34	CLIMATE CONTROLS ON FOREST SOIL C ISOTOPE RATIOS IN THE SOUTHERN APPALACHIAN MOUNTAINS. Ecology, 2000, 81, 1108-1119.	1.5	150
35	Forest soil carbon inventories and dynamics along an elevation gradient in the southern Appalachian Mountains. Biogeochemistry, 1999, 45, 115-145.	1.7	135
36	Measured forest soil C stocks and estimated turnover times along an elevation gradient. Geoderma, 2006, 136, 342-352.	2.3	134

#	Article	IF	Citations
37	Factors controlling evaporation and energy partitioning beneath a deciduous forest over an annual cycle. Agricultural and Forest Meteorology, 2000, 102, 83-103.	1.9	133
38	Environmental and stomatal control of photosynthetic enhancement in the canopy of a sweetgum (Liquidambar styraciflua L.) plantation during 3 years of CO2 enrichment. Plant, Cell and Environment, 2002, 25, 379-393.	2.8	131
39	A six-year study of sapling and large-tree growth and mortality responses to natural and induced variability in precipitation and throughfall. Tree Physiology, 2001, 21, 345-358.	1.4	130
40	On the multiâ€temporal correlation between photosynthesis and soil CO₂ efflux: reconciling lags and observations. New Phytologist, 2011, 191, 1006-1017.	3.5	128
41	Stem respiration in a closed-canopy upland oak forest. Tree Physiology, 1996, 16, 433-439.	1.4	123
42	Recent (<4 year old) leaf litter is not a major source of microbial carbon in a temperate forest mineral soil. Soil Biology and Biochemistry, 2010, 42, 1028-1037.	4.2	116
43	Attaining whole-ecosystem warming using air and deep-soil heating methods with an elevated CO₂ atmosphere. Biogeosciences, 2017, 14, 861-883.	1.3	115
44	Forest phenology and a warmer climate â€“ growing season extension in relation to climatic provenance. Global Change Biology, 2012, 18, 2008-2025.	4.2	114
45	Modelled effects of precipitation on ecosystem carbon and water dynamics in different climatic zones. Global Change Biology, 2008, 14, 2365-2379.	4.2	112
46	Environmental control of whole-plant transpiration, canopy conductance and estimates of the decoupling coefficient for large red maple trees. Agricultural and Forest Meteorology, 2000, 104, 157-168.	1.9	111
47	An initial intercomparison of micrometeorological and ecological inventory estimates of carbon exchange in a mid-latitude deciduous forest. Global Change Biology, 2002, 8, 575-589.	4.2	105
48	Few multiyear precipitationâ€“reduction experiments find aÂshift in the productivityâ€“precipitation relationship. Global Change Biology, 2016, 22, 2570-2581.	4.2	105
49	Reviews and syntheses: Four decades of modeling methane cycling in terrestrial ecosystems. Biogeosciences, 2016, 13, 3735-3755.	1.3	102
50	Factors controlling the timing of root elongation intensity in a mature upland oak stand. Plant and Soil, 2001, 228, 201-212.	1.8	100
51	Comprehensive ecosystem modelâ€data synthesis using multiple data sets at two temperate forest freeâ€air CO₂ enrichment experiments: Model performance at ambient CO₂ concentration. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 937-964.	1.3	95
52	Peatland warming strongly increases fine-root growth. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17627-17634.	3.3	95
53	A belowground perspective on the drought sensitivity of forests: Towards improved understanding and simulation. Forest Ecology and Management, 2016, 380, 309-320.	1.4	92
54	Rapid loss of an ecosystem engineer: <i>Sphagnum</i> decline in an experimentally warmed bog. Ecology and Evolution, 2019, 9, 12571-12585.	0.8	92

#	Article	IF	Citations
55	NET PRIMARY PRODUCTIVITY OF A CO2-ENRICHED DECIDUOUS FOREST AND THE IMPLICATIONS FOR CARBON STORAGE. , 2002, 12, 1261-1266.		91
56	Partitioning sources of soil-respired CO2 and their seasonal variation using a unique radiocarbon tracer. Global Change Biology, 2006, 12, 194-204.	4.2	90
57	Use of stored carbon reserves in growth of temperate tree roots and leaf buds: analyses using radiocarbon measurements and modeling. Global Change Biology, 2009, 15, 992-1014.	4.2	89
58	Comparing ecosystem and soil respiration: Review and key challenges of tower-based and soil measurements. Agricultural and Forest Meteorology, 2018, 249, 434-443.	1.9	89
59	Experimental warming alters the community composition, diversity, and N₂ fixation activity of peat moss (<i>Sphagnum fallax</i>) microbiomes. Global Change Biology, 2019, 25, 2993-3004.	4.2	89
60	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.	4.2	87
61	Induction of nitrate reductase activity in red spruce needles by NO2 and HNO3 vapor. Canadian Journal of Forest Research, 1989, 19, 889-896.	0.8	86
62	Measuring stem water content in four deciduous hardwoods with a time-domain reflectometer. Tree Physiology, 1996, 16, 809-815.	1.4	85
63	NO2 deposition to elements representative of a forest landscape. Atmospheric Environment, 1989, 23, 1783-1794.	1.1	83
64	Seasonal patterns of light-saturated photosynthesis and leaf conductance for mature and seedling Quercus rubra L. foliage: differential sensitivity to ozone exposure. Tree Physiology, 1994, 14, 1351-1366.	1.4	83
65	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.	4.2	83
66	The match and mismatch between photosynthesis and land surface phenology of deciduous forests. Agricultural and Forest Meteorology, 2015, 214-215, 25-38.	1.9	80
67	Massive peatland carbon banks vulnerable to rising temperatures. Nature Communications, 2020, 11, 2373.	5.8	76
68	Foliar retention of 15N-nitrate and 15N-ammonium by red maple (Acer rubrum) and white oak (Quercus) Tj ETQq0 0 0 rgBT /Overlock 10	2.0	75
69	Increased dark respiration and calcium deficiency of red spruce in relation to acidic deposition at high-elevation southern Appalachian Mountain sites. Canadian Journal of Forest Research, 1991, 21, 1234-1244.	0.8	74
70	Interactions between drought and elevated CO 2 on growth and gas exchange of seedlings of three deciduous tree species. New Phytologist, 1995, 129, 63-71.	3.5	74
71	Low Dissolved Organic Carbon Input from Fresh Litter to Deep Mineral Soils. Soil Science Society of America Journal, 2007, 71, 347-354.	1.2	74
72	Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments. Biogeosciences, 2014, 11, 2991-3013.	1.3	74

#	Article	IF	Citations
73	Quantifying Apoplastic Flux through Red Pine Root Systems Using Trisodium, 3-hydroxy-5,8,10-pyrenetrisulfonate. Plant Physiology, 1985, 77, 21-24.	2.3	73
74	A morphological index of Quercus seedling ontogeny for use in studies of physiology and growth. Tree Physiology, 1986, 2, 273-281.	1.4	71
75	Environmental controls on water use efficiency during severe drought in an Ozark Forest in Missouri, USA. Global Change Biology, 2010, 16, 2252-2271.	4.2	71
76	Rapid Net Carbon Loss From a Wholeâ€Ecosystem Warmed Peatland. AGU Advances, 2020, 1, e2020AV000163.	2.3	69
77	Representing northern peatland microtopography and hydrology within the Community Land Model. Biogeosciences, 2015, 12, 6463-6477.	1.3	66
78	Global transpiration data from sap flow measurements: the SAPFLUXNET database. Earth System Science Data, 2021, 13, 2607-2649.	3.7	65
79	Uncertainty in Peat Volume and Soil Carbon Estimated Using Groundâ€Penetrating Radar and Probing. Soil Science Society of America Journal, 2012, 76, 1911-1918.	1.2	63
80	Comparison of soil organic matter dynamics at five temperate deciduous forests with physical fractionation and radiocarbon measurements. Biogeochemistry, 2013, 112, 457-476.	1.7	63
81	A model of heat transfer in sapwood and implications for sap flux density measurements using thermal dissipation probes. Tree Physiology, 2011, 31, 669-679.	1.4	60
82	Hydrogenation of organic matter as a terminal electron sink sustains high CO2:CH4 production ratios during anaerobic decomposition. Organic Geochemistry, 2017, 112, 22-32.	0.9	59
83	Soil Respiration and Litter Decomposition. Ecological Studies, 2003, , 163-189.	0.4	59
84	Fine-root growth in a forested bog is seasonally dynamic, but shallowly distributed in nutrient-poor peat. Plant and Soil, 2018, 424, 123-143.	1.8	58
85	Intercomparison of techniques to model water stress effects on CO2 and energy exchange in temperate and boreal deciduous forests. Ecological Modelling, 2006, 196, 289-312.	1.2	57
86	Association with pedogenic iron and aluminum: effects on soil organic carbon storage and stability in four temperate forest soils. Biogeochemistry, 2017, 133, 333-345.	1.7	57
87	ForCent model development and testing using the Enriched Background Isotope Study experiment. Journal of Geophysical Research, 2010, 115, .	3.3	56
88	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.	1.9	56
89	The fundamental equation of eddy covariance and its application in flux measurements. Agricultural and Forest Meteorology, 2012, 152, 135-148.	1.9	56
90	Soil metabolome response to whole-ecosystem warming at the Spruce and Peatland Responses under Changing Environments experiment. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	54

#	Article	IF	Citations
91	Whole-plant water flux in understory red maple exposed to altered precipitation regimes. Tree Physiology, 1998, 18, 71-79.	1.4	53
92	Minnesota peat viromes reveal terrestrial and aquatic niche partitioning for local and global viral populations. Microbiome, 2021, 9, 233.	4.9	53
93	Effect of moisture on leaf litter decomposition and its contribution to soil respiration in a temperate forest. Journal of Geophysical Research, 2007, 112, .	3.3	51
94	Rainfall manipulation experiments as simulated by terrestrial biosphere models: Where do we stand?. Global Change Biology, 2020, 26, 3336-3355.	4.2	50
95	Fineâ€root mortality rates in a temperate forest: estimates using radiocarbon data and numerical modeling. New Phytologist, 2009, 184, 387-398.	3.5	49
96	Dataâ€Constrained Projections of Methane Fluxes in a Northern Minnesota Peatland in Response to Elevated CO₂ and Warming. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2841-2861.	1.3	47
97	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
98	Forest trees and tropospheric ozone: role of canopy deposition and leaf uptake in developing exposure-response relationships. Agriculture, Ecosystems and Environment, 1992, 42, 255-273.	2.5	42
99	A method for experimental heating of intact soil profiles for application to climate change experiments. Global Change Biology, 2011, 17, 1083-1096.	4.2	42
100	Growth and maintenance respiration in stems of Quercus alba after four years of CO2 enrichment. Physiologia Plantarum, 1995, 93, 47-54.	2.6	41
101	Quantifying ecosystem-atmosphere carbon exchange with a 14C label. Eos, 2002, 83, 265.	0.1	41
102	Simulation of carbon cycling, including dissolved organic carbon transport, in forest soil locally enriched with 14C. Biogeochemistry, 2012, 108, 91-107.	1.7	41
103	Vertical Stratification of Peat Pore Water Dissolved Organic Matter Composition in a Peat Bog in Northern Minnesota. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 479-494.	1.3	41
104	Deposition of H 15 NO 3 vapour to white oak, red maple and loblolly pine foliage: experimental observations and a generalized model. New Phytologist, 1992, 122, 329-337.	3.5	39
105	Vadose Zone Flow and Transport of Dissolved Organic Carbon at Multiple Scales in Humid Regimes. Vadose Zone Journal, 2006, 5, 140-152.	1.3	39
106	Flux of carbon from 14C-enriched leaf litter throughout a forest soil mesocosm. Geoderma, 2009, 149, 181-188.	2.3	36
107	Advancing global change biology through experimental manipulations: Where have we been and where might we go?. Global Change Biology, 2020, 26, 287-299.	4.2	36
108	Foliar Exchange of Mercury Vapor: Evidence for a Compensation Point. , 1995, , 373-382.		36

#	Article	IF	Citations
109	Intermediate-scale community-level flux of CO2 and CH4 in a Minnesota peatland: putting the SPRUCE project in a global context. Biogeochemistry, 2016, 129, 255-272.	1.7	35
110	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
111	A novel approach for identifying the true temperature sensitivity from soil respiration measurements. Global Biogeochemical Cycles, 2008, 22, .	1.9	34
112	Temporal and Spatial Variation in Peatland Carbon Cycling and Implications for Interpreting Responses of an Ecosystemâ€Scale Warming Experiment. Soil Science Society of America Journal, 2017, 81, 1668-1688.	1.2	34
113	Are seedlings reasonable surrogates for trees? An analysis of ozone impacts on Quercus rubra. Water, Air, and Soil Pollution, 1995, 85, 1317-1324.	1.1	33
114	Needle age and season influence photosynthetic temperature response and total annual carbon uptake in mature<i>Picea mariana</i>trees. Annals of Botany, 2015, 116, 821-832.	1.4	33
115	Long-term carbon and nitrogen dynamics at SPRUCE revealed through stable isotopes in peat profiles. Biogeosciences, 2017, 14, 2481-2494.	1.3	32
116	Vascular plant species response to warming and elevated carbon dioxide in a boreal peatland. Environmental Research Letters, 2020, 15, 124066.	2.2	32
117	Effects of throughfall manipulation on soil nutrient status: results of 12 years of sustained wet and dry treatments. Global Change Biology, 2008, 14, 1661-1675.	4.2	31
118	Pollutant Deposition to Individual Leaves and Plant Canopies: Sites of Regulation and Relationship to Injury. , 1988, , 227-257.		31
119	Long-term successional forest dynamics: species and community responses to climatic variability. Journal of Vegetation Science, 2010, 21, 627.	1.1	29
120	Evidence for Light-Dependent Recycling of Respired Carbon Dioxide by the Cotton Fruit. Plant Physiology, 1991, 97, 574-579.	2.3	27
121	Comparison of soil respiration methods in a mid-latitude deciduous forest. Biogeochemistry, 2006, 80, 173-189.	1.7	27
122	Net CO2 exchange of Pinus taeda shoots exposed to variable ozone levels and rain chemistries in field and laboratory settings. Physiologia Plantarum, 1988, 74, 635-642.	2.6	25
123	Reconciling Change in Oiâ€Horizon Carbonâ€14 with Mass Loss for an Oak Forest. Soil Science Society of America Journal, 2005, 69, 1492-1502.	1.2	25
124	Temperature sensitivity of extracellular enzymes differs with peat depth but not with season in an ombrotrophic bog. Soil Biology and Biochemistry, 2018, 125, 244-250.	4.2	25
125	Forest responses to CO2 enrichment and climate warming. Water, Air, and Soil Pollution, 1993, 70, 309-323.	1.1	24
126	Guidelines and considerations for designing field experiments simulating precipitation extremes in forest ecosystems. Methods in Ecology and Evolution, 2018, 9, 2310-2325.	2.2	24

#	Article	IF	Citations
127	Walker Branch Throughfall Displacement Experiment. Ecological Studies, 2003, , 8-31.	0.4	24
128	Forecasting Responses of a Northern Peatland Carbon Cycle to Elevated CO₂ and a Gradient of Experimental Warming. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1057-1071.	1.3	23
129	Growth Responses of 53 Openâ€Pollinated Loblolly Pine Families to Ozone and Acid Rain. Journal of Environmental Quality, 1994, 23, 247-257.	1.0	22
130	Growth and maintenance respiration in leaves of northern red oak seedlings and mature trees after 3 years of ozone exposure. Plant, Cell and Environment, 1996, 19, 577-584.	2.8	22
131	Simulated effects of temperature and precipitation change in several forest ecosystems. Journal of Hydrology, 2000, 235, 183-204.	2.3	22
132	Biophysical drivers of seasonal variability in <i>Sphagnum</i> gross primary production in a northern temperate bog. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1078-1097.	1.3	22
133	Highâ€resolution minirhizotrons advance our understanding of rootâ€fungal dynamics in an experimentally warmed peatland. Plants People Planet, 2021, 3, 640-652.	1.6	20
134	Allelopathic effects of interrupted fern on northern red oak seedlings: Amelioration bySuillus luteus L.: Fr.. Plant and Soil, 1987, 98, 43-51.	1.8	19
135	The Effects of Throughfall Manipulation on Soil Leaching in a Deciduous Forest. Journal of Environmental Quality, 2002, 31, 204-216.	1.0	19
136	Title is missing!. Water, Air, and Soil Pollution, 1998, 105, 251-262.	1.1	18
137	Defining the <i>Sphagnum</i> Core Microbiome across the North American Continent Reveals a Central Role for Diazotrophic Methanotrophs in the Nitrogen and Carbon Cycles of Boreal Peatland Ecosystems. MBio, 2022, 13, .	1.8	18
138	Habitatâ€adapted microbial communities mediate <i>Sphagnum</i> peatmoss resilience to warming. New Phytologist, 2022, 234, 2111-2125.	3.5	18
139	Evaluation of effects of sustained decadal precipitation manipulations on soil carbon stocks. Biogeochemistry, 2008, 89, 151-161.	1.7	17
140	Novel climates reverse carbon uptake of atmospherically dependent epiphytes: Climatic constraints on the iconic boreal forest lichen <i>Evernia mesomorpha</i>. American Journal of Botany, 2018, 105, 266-274.	0.8	17
141	Realized ecological forecast through an interactive Ecological Platform for Assimilating Data (EcoPAD, v1.0) into models. Geoscientific Model Development, 2019, 12, 1119-1137.	1.3	17
142	Extending a land-surface model with <i>Sphagnum</i> moss to simulate responses of a northern temperate bog to whole ecosystem warming and elevated CO₂. Biogeosciences, 2021, 18, 467-486.	1.3	17
143	Soil thermal dynamics, snow cover, and frozen depth under five temperature treatments in an ombrotrophic bog: Constrained forecast with data assimilation. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2046-2063.	1.3	16
144	Characterizing Peatland Microtopography Using Gradient and Microform-Based Approaches. Ecosystems, 2020, 23, 1464-1480.	1.6	16

#	Article	IF	Citations
145	An Integrative Model for Soil Biogeochemistry and Methane Processes. II: Warming and Elevated CO₂ Effects on Peatland CH₄ Emissions. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005963.	1.3	16
146	Passive nighttime warming facility for forest ecosystem research. Tree Physiology, 1998, 18, 615-623.	1.4	15
147	A comprehensive data acquisition and management system for an ecosystem-scale peatland warming and elevated CO₂ experiment. Geoscientific Instrumentation, Methods and Data Systems, 2015, 4, 203-213.	0.6	15
148	Local Spatial Heterogeneity of Holocene Carbon Accumulation throughout the Peat Profile of an Ombrotrophic Northern Minnesota Bog. Radiocarbon, 2018, 60, 941-962.	0.8	15
149	Nitrogen and phosphorus cycling in an ombrotrophic peatland: a benchmark for assessing change. Plant and Soil, 2021, 466, 649-674.	1.8	15
150	Warming and elevated CO₂ promote rapid incorporation and degradation of plantâ€derived organic matter in an ombrotrophic peatland. Global Change Biology, 2022, 28, 883-898.	4.2	15
151	Ground-Dwelling Beetle Responses to Long-Term Precipitation Alterations in a Hardwood Forest. Southeastern Naturalist, 2014, 13, 138-155.	0.2	14
152	Canopy Production. Ecological Studies, 2003, , 303-315.	0.4	14
153	Emissions of mercury vapor from tree bark. Atmospheric Environment, 1997, 31, 777-780.	1.9	13
154	From systems biology to photosynthesis and whole-plant physiology. Plant Signaling and Behavior, 2012, 7, 260-262.	1.2	13
155	Constraints on microbial communities, decomposition and methane production in deep peat deposits. PLoS ONE, 2020, 15, e0223744.	1.1	13
156	CO2 Enrichment of a Deciduous Forest: The Oak Ridge FACE Experiment. , 2006, , 231-251.		13
157	Whole-Ecosystem Warming Increases Plant-Available Nitrogen and Phosphorus in an Ombrotrophic Bog. Ecosystems, 2023, 26, 86-113.	1.6	13
158	A call for international soil experiment networks for studying, predicting, and managing global change impacts. Soil, 2015, 1, 575-582.	2.2	12
159	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.	0.4	12
160	Root carbon flux: measurements versus mechanisms. New Phytologist, 2009, 184, 4-6.	3.5	11
161	An Integrative Model for Soil Biogeochemistry and Methane Processes: I. Model Structure and Sensitivity Analysis. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2019JG005468.	1.3	11
162	Large-Scale Water Manipulations. , 2000, , 341-352.		11

#	Article	IF	Citations
163	Corrigendum to "Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments". Biogeosciences, 2014, 11, 3307-3308.	1.3	10
164	Divergent speciesâ€specific impacts of whole ecosystem warming and elevated CO 2 on vegetation water relations in an ombrotrophic peatland. Global Change Biology, 2021, 27, 1820-1835.	4.2	10
165	Assessing the influence of exogenous ethylene on electron transport and fluorescence quenching in leaves of Glycine max. Environmental and Experimental Botany, 1992, 32, 449-455.	2.0	9
166	Improvements of a dynamic global vegetation model and simulations of carbon and water at an upland-oak forest. Advances in Atmospheric Sciences, 2007, 24, 311-322.	1.9	9
167	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, .	1.0	9
168	Warming induces divergent stomatal dynamics in coâ€occurring boreal trees. Global Change Biology, 2021, 27, 3079-3094.	4.2	9
169	Forest Responses to Co2 Enrichment and Climate Warming. , 1993, , 309-323.		9
170	Emissions of Nonâ€Methane Organic Compounds and Carbon Dioxide from Forest Floor Cores. Soil Science Society of America Journal, 1994, 58, 552-555.	1.2	8
171	Air Flow and Heat Transfer in a Temperature-Controlled Open Top Enclosure. , 2012, , .		8
172	Tree-Ring Growth and Wood Chemistry Response to Manipulated Precipitation Variation for Two Temperate Quercus Species. Tree-Ring Research, 2012, 68, 17-29.	0.4	8
173	Soil Macroinvertebrate Communities Across a Productivity Gradient in Deciduous Forests of Eastern North America. Northeastern Naturalist, 2016, 23, 25-44.	0.1	8
174	Simulated projections of boreal forest peatland ecosystem productivity are sensitive to observed seasonality in leaf physiologyâ€. Tree Physiology, 2019, 39, 556-572.	1.4	8
175	Net Primary Productivity of a CO 2 -Enriched Deciduous Forest and the Implications for Carbon Storage. , 2002, 12, 1261.		7
176	Evaluating the E3SM land model version 0 (ELMv0) at a temperate forest site using flux and soil water measurements. Geoscientific Model Development, 2019, 12, 1601-1612.	1.3	7
177	Evaluation and modification of ELM seasonal deciduous phenology against observations in a southern boreal peatland forest. Agricultural and Forest Meteorology, 2021, 308-309, 108556.	1.9	7
178	Radiocarbon Analyses Quantify Peat Carbon Losses With Increasing Temperature in a Whole Ecosystem Warming Experiment. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006511.	1.3	7
179	Growth, Photosynthesis, and Chlorophyll Concentrations of Red Spruce Seedlings Treated with Mist Containing Hydrogen Peroxide. Journal of Environmental Quality, 1989, 18, 499-503.	1.0	6
180	Correction to â€œInfluences of biomass heat and biochemical energy storages on the land surface fluxes and radiative temperatureâ€. Journal of Geophysical Research, 2007, 112, .	3.3	6

#	Article	IF	Citations
181	Soil organic matter is principally root derived in an Ultisol under oak forest. Geoderma, 2021, 403, 115385.	2.3	6
182	Tree and Sapling Growth and Mortality. Ecological Studies, 2003, , 255-273.	0.4	6
183	CO2 exchange rates of red spruce during the second season of exposure to ozone and acidic cloud deposition. Environmental and Experimental Botany, 1992, 32, 115-124.	2.0	5
184	A model-independent data assimilation (MIDA) module and its applications in ecology. Geoscientific Model Development, 2021, 14, 5217-5238.	1.3	5
185	Forest Water Use and the Influence of Precipitation Change. Ecological Studies, 2003, , 363-377.	0.4	5
186	Compositional stability of peat in ecosystem-scale warming mesocosms. PLoS ONE, 2022, 17, e0263994.	1.1	5
187	Evaluating alternative ebullition models for predicting peatland methane emission and its pathways via dataâ€“model fusion. Biogeosciences, 2022, 19, 2245-2262.	1.3	5
188	Near-real-time environmental monitoring and large-volume data collection over slow communication links. Geoscientific Instrumentation, Methods and Data Systems, 2018, 7, 289-295.	0.6	4
189	Deciduous Hardwood Photosynthesis: Species Differences, Temporal Patterns, and Responses to Soil-Water Deficits. Ecological Studies, 2003, , 35-47.	0.4	4
190	Dormant-Season Nonstructural Carbohydrate Storage. Ecological Studies, 2003, , 67-84.	0.4	4
191	Hydrological feedbacks on peatland CH4 emission under warming and elevated CO2: A modeling study. Journal of Hydrology, 2021, 603, 127137.	2.3	4
192	Intensified Soil Moisture Extremes Decrease Soil Organic Carbon Decomposition: A Mechanistic Modeling Analysis. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006392.	1.3	3
193	Sensitivity of Sapling and Mature-Tree Water Use to Altered Precipitation Regimes. Ecological Studies, 2003, , 87-99.	0.4	3
194	Forest Processes. Advances in Global Change Research, 2014, , 25-54.	1.6	3
195	Nutrient Availability and Cycling. Ecological Studies, 2003, , 396-414.	0.4	1
196	Aboveground Autotrophic Respiration. Ecological Studies, 2003, , 48-66.	0.4	1
197	Incorporating Microtopography in a Land Surface Model and Quantifying the Effect on the Carbon Cycle. Journal of Advances in Modeling Earth Systems, 2022, 14, e2021MS002721.	1.3	1