

# Kathleen K Treseder

## List of Publications by Year in descending order

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128  
papers

21,569  
citations

12330

69  
h-index

15266

126  
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129  
all docs

129  
docs citations

129  
times ranked

18693  
citing authors

#	ARTICLE	IF	CITATIONS
1	NITROGEN LIMITATION OF NET PRIMARY PRODUCTIVITY IN TERRESTRIAL ECOSYSTEMS IS GLOBALLY DISTRIBUTED. <i>Ecology</i> , 2008, 89, 371-379.	3.2	2,069
2	Nitrogen additions and microbial biomass: a meta-analysis of ecosystem studies. <i>Ecology Letters</i> , 2008, 11, 1111-1120.	6.4	1,221
3	A meta-analysis of mycorrhizal responses to nitrogen, phosphorus, and atmospheric CO <sub>2</sub> in field studies. <i>New Phytologist</i> , 2004, 164, 347-355.	7.3	1,025
4	Quantifying global soil carbon losses in response to warming. <i>Nature</i> , 2016, 540, 104-108.	27.8	879
5	The Impact of Boreal Forest Fire on Climate Warming. <i>Science</i> , 2006, 314, 1130-1132.	12.6	765
6	Thermal adaptation of soil microbial respiration to elevated temperature. <i>Ecology Letters</i> , 2008, 11, 1316-1327.	6.4	690
7	Phylogenetic conservatism of functional traits in microorganisms. <i>ISME Journal</i> , 2013, 7, 830-838.	9.8	526
8	Warming and drying suppress microbial activity and carbon cycling in boreal forest soils. <i>Global Change Biology</i> , 2008, 14, 2898-2909.	9.5	511
9	Differential Growth Responses of Soil Bacterial Taxa to Carbon Substrates of Varying Chemical Recalcitrance. <i>Frontiers in Microbiology</i> , 2011, 2, 94.	3.5	504
10	Defining trait-based microbial strategies with consequences for soil carbon cycling under climate change. <i>ISME Journal</i> , 2020, 14, 1-9.	9.8	470
11	Decomposers in disguise: mycorrhizal fungi as regulators of soil C dynamics in ecosystems under global change. <i>Functional Ecology</i> , 2008, 22, 955-963.	3.6	450
12	Direct nitrogen and phosphorus limitation of arbuscular mycorrhizal fungi: a model and field test. <i>New Phytologist</i> , 2002, 155, 507-515.	7.3	416
13	Fungal Traits That Drive Ecosystem Dynamics on Land. <i>Microbiology and Molecular Biology Reviews</i> , 2015, 79, 243-262.	6.6	391
14	EFFECTS OF SOIL NUTRIENT AVAILABILITY ON INVESTMENT IN ACQUISITION OF N AND P IN HAWAIIAN RAIN FORESTS. <i>Ecology</i> , 2001, 82, 946-954.	3.2	384
15	Increases in the flux of carbon belowground stimulate nitrogen uptake and sustain the long-term enhancement of forest productivity under elevated CO <sub>2</sub> . <i>Ecology Letters</i> , 2011, 14, 349-357.	6.4	374
16	Global diversity and distribution of arbuscular mycorrhizal fungi. <i>Soil Biology and Biochemistry</i> , 2011, 43, 2294-2303.	8.8	356
17	Mycorrhizal fungi have a potential role in soil carbon storage under elevated CO <sub>2</sub> and nitrogen deposition. <i>New Phytologist</i> , 2000, 147, 189-200.	7.3	351
18	Microbial abundance and composition influence litter decomposition response to environmental change. <i>Ecology</i> , 2013, 94, 714-725.	3.2	340

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19	Microbial communities and their relevance for ecosystem models: Decomposition as a case study. <i>Soil Biology and Biochemistry</i> , 2010, 42, 529-535.	8.8	337
20	Microbial activity and soil respiration under nitrogen addition in Alaskan boreal forest. <i>Global Change Biology</i> , 2008, 14, 1156-1168.	9.5	330
21	Interactions among lignin, cellulose, and nitrogen drive litter chemistry's decay relationships. <i>Ecology</i> , 2012, 93, 345-354.	3.2	310
22	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO <sub>2</sub> . <i>New Phytologist</i> , 2021, 229, 2413-2445.	7.3	286
23	ECOLOGY OF MYCORRHIZAE: A Conceptual Framework for Complex Interactions Among Plants and Fungi. <i>Annual Review of Phytopathology</i> , 2003, 41, 271-303.	7.8	272
24	Nutrient limitation of soil microbial processes in tropical forests. <i>Ecological Monographs</i> , 2018, 88, 4-21.	5.4	261
25	Nitrogen fertilization reduces diversity and alters community structure of active fungi in boreal ecosystems. <i>Soil Biology and Biochemistry</i> , 2007, 39, 1878-1887.	8.8	255
26	The effect of fire on microbial biomass: a meta-analysis of field studies. <i>Biogeochemistry</i> , 2012, 109, 49-61.	3.5	244
27	Soil microbes and their response to experimental warming over time: A meta-analysis of field studies. <i>Soil Biology and Biochemistry</i> , 2017, 107, 32-40.	8.8	234
28	Glomalin in Ecosystems. <i>Soil Science Society of America Journal</i> , 2007, 71, 1257-1266.	2.2	217
29	The extent of mycorrhizal colonization of roots and its influence on plant growth and phosphorus content. <i>Plant and Soil</i> , 2013, 371, 1-13.	3.7	216
30	Decomposition responses to climate depend on microbial community composition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 11994-11999.	7.1	214
31	Nitrogen stable isotopic composition of leaves and soil: Tropical versus temperate forests. <i>Biogeochemistry</i> , 1999, 46, 45-65.	3.5	207
32	Integrating microbial ecology into ecosystem models: challenges and priorities. <i>Biogeochemistry</i> , 2012, 109, 7-18.	3.5	206
33	RELATIONSHIPS AMONG FIRES, FUNGI, AND SOIL DYNAMICS IN ALASKAN BOREAL FORESTS. , 2004, 14, 1826-1838.		188
34	Fungal Taxa Target Different Carbon Sources in Forest Soil. <i>Ecosystems</i> , 2008, 11, 1157-1167.	3.4	174
35	A meta-analysis of soil microbial biomass responses to forest disturbances. <i>Frontiers in Microbiology</i> , 2013, 4, 163.	3.5	173
36	Environmental filtering affects soil fungal community composition more than dispersal limitation at regional scales. <i>Fungal Ecology</i> , 2014, 12, 14-25.	1.6	173

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37	Fungal functional ecology: bringing a trait-based approach to plant-associated fungi. <i>Biological Reviews</i> , 2020, 95, 409-433.	10.4	171
38	Litter decay rates are determined by lignin chemistry. <i>Biogeochemistry</i> , 2012, 108, 279-295.	3.5	169
39	Absorption of ant-provided carbon dioxide and nitrogen by a tropical epiphyte. <i>Nature</i> , 1995, 375, 137-139.	27.8	163
40	Global patterns of plant root colonization intensity by mycorrhizal fungi explained by climate and soil chemistry. <i>Global Ecology and Biogeography</i> , 2015, 24, 371-382.	5.8	163
41	Sources of inocula influence mycorrhizal colonization of plants in restoration projects: a meta-analysis. <i>Restoration Ecology</i> , 2015, 23, 625-634.	2.9	147
42	Changes in Soil Fungal Communities, Extracellular Enzyme Activities, and Litter Decomposition Across a Fire Chronosequence in Alaskan Boreal Forests. <i>Ecosystems</i> , 2013, 16, 34-46.	3.4	145
43	Global Distributions of Arbuscular Mycorrhizal Fungi. <i>Ecosystems</i> , 2006, 9, 305-316.	3.4	140
44	The brighter side of soils: Quantum dots track organic nitrogen through fungi and plants. <i>Ecology</i> , 2009, 90, 100-108.	3.2	135
45	Functional diversity in resource use by fungi. <i>Ecology</i> , 2010, 91, 2324-2332.	3.2	133
46	Effects of Drought Manipulation on Soil Nitrogen Cycling: A Meta-Analysis. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 3260-3272.	3.0	124
47	Microbial response to simulated global change is phylogenetically conserved and linked with functional potential. <i>ISME Journal</i> , 2016, 10, 109-118.	9.8	123
48	Controls over mycorrhizal uptake of organic nitrogen. <i>Pedobiologia</i> , 2010, 53, 169-179.	1.2	121
49	Fungal Community Composition in Neotropical Rain Forests: the Influence of Tree Diversity and Precipitation. <i>Microbial Ecology</i> , 2012, 63, 804-812.	2.8	121
50	Recovery of Aboveground Plant Biomass and Productivity After Fire in Mesic and Dry Black Spruce Forests of Interior Alaska. <i>Ecosystems</i> , 2008, 11, 209-225.	3.4	120
51	Experimental warming alters potential function of the fungal community in boreal forest. <i>Global Change Biology</i> , 2016, 22, 3395-3404.	9.5	119
52	Fine roots, arbuscular mycorrhizal hyphae and soil nutrients in four neotropical rain forests: patterns across large geographic distances. <i>New Phytologist</i> , 2005, 165, 913-921.	7.3	114
53	Using lipid analysis and hyphal length to quantify AM and saprotrophic fungal abundance along a soil chronosequence. <i>Soil Biology and Biochemistry</i> , 2005, 37, 601-604.	8.8	114
54	Soil extracellular enzyme activities correspond with abiotic factors more than fungal community composition. <i>Biogeochemistry</i> , 2014, 117, 23-37.	3.5	112

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55	Microbial legacies alter decomposition in response to simulated global change. <i>ISME Journal</i> , 2017, 11, 490-499.	9.8	112
56	Potential ecosystem-level effects of genetic variation among populations of <i>Metrosideros polymorpha</i> from a soil fertility gradient in Hawaii. <i>Oecologia</i> , 2001, 126, 266-275.	2.0	111
57	Arbuscular mycorrhizal fungi as mediators of ecosystem responses to nitrogen deposition: A trait-based predictive framework. <i>Journal of Ecology</i> , 2018, 106, 480-489.	4.0	110
58	Experimental warming and burn severity alter soil CO <sub>2</sub> flux and soil functional groups in a recently burned boreal forest. <i>Global Change Biology</i> , 2004, 10, 1996-2004.	9.5	108
59	Organic nitrogen uptake by arbuscular mycorrhizal fungi in a boreal forest. <i>Soil Biology and Biochemistry</i> , 2012, 55, 7-13.	8.8	99
60	Fire severity influences the response of soil microbes to a boreal forest fire. <i>Environmental Research Letters</i> , 2016, 11, 035004.	5.2	98
61	Nitrogen alters carbon dynamics during early succession in boreal forest. <i>Soil Biology and Biochemistry</i> , 2010, 42, 1157-1164.	8.8	96
62	Amino Acid Uptake in Arbuscular Mycorrhizal Plants. <i>PLoS ONE</i> , 2012, 7, e47643.	2.5	91
63	Climate change feedbacks to microbial decomposition in boreal soils. <i>Fungal Ecology</i> , 2011, 4, 362-374.	1.6	87
64	Litter chemistry influences decomposition through activity of specific microbial functional guilds. <i>Ecological Monographs</i> , 2018, 88, 429-444.	5.4	87
65	Mycorrhizal responses to nitrogen fertilization in boreal ecosystems: potential consequences for soil carbon storage. <i>Global Change Biology</i> , 2007, 13, 78-88.	9.5	86
66	Expansion of <i>Coccidioidomycosis</i> Endemic Regions in the United States in Response to Climate Change. <i>GeoHealth</i> , 2019, 3, 308-327.	4.0	86
67	Evolutionary trade-offs among decomposers determine responses to nitrogen enrichment. <i>Ecology Letters</i> , 2011, 14, 933-938.	6.4	84
68	Mycorrhizal dynamics under elevated CO <sub>2</sub> and nitrogen fertilization in a warm temperate forest. <i>Plant and Soil</i> , 2008, 303, 301-310.	3.7	83
69	Resistance of microbial and soil properties to warming treatment seven years after boreal fire. <i>Soil Biology and Biochemistry</i> , 2010, 42, 1872-1878.	8.8	81
70	Evolutionary histories of soil fungi are reflected in their large-scale biogeography. <i>Ecology Letters</i> , 2014, 17, 1086-1093.	6.4	80
71	Temperature sensitivities of extracellular enzyme $V_{max}$ and $K_m$ across thermal environments. <i>Global Change Biology</i> , 2018, 24, 2884-2897.	9.5	72
72	Ectomycorrhizal-Dominated Boreal and Tropical Forests Have Distinct Fungal Communities, but Analogous Spatial Patterns across Soil Horizons. <i>PLoS ONE</i> , 2013, 8, e68278.	2.5	69

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73	Coccidioidomycosis Dynamics in Relation to Climate in the Southwestern United States. <i>GeoHealth</i> , 2018, 2, 6-24.	4.0	69
74	Shifts in soil fungi and extracellular enzyme activity with simulated climate change in a tropical montane cloud forest. <i>Soil Biology and Biochemistry</i> , 2018, 117, 87-96.	8.8	68
75	Global Change and Mycorrhizal Fungi. <i>Ecological Studies</i> , 2002, , 135-160.	1.2	61
76	Fungal Carbon Sequestration. <i>Science</i> , 2013, 339, 1528-1529.	12.6	61
77	An ecosystem-scale radiocarbon tracer to test use of litter carbon by ectomycorrhizal fungi. <i>Soil Biology and Biochemistry</i> , 2006, 38, 1077-1082.	8.8	59
78	Alteration of Soil Carbon Pools and Communities of Mycorrhizal Fungi in Chaparral Exposed to Elevated Carbon Dioxide. <i>Ecosystems</i> , 2003, 6, 786-796.	3.4	57
79	Identities and distributions of the co-invading ectomycorrhizal fungal symbionts of exotic pines in the Hawaiian Islands. <i>Biological Invasions</i> , 2013, 15, 2373-2385.	2.4	56
80	The influence of tree species on canopy soil nutrient status in a tropical lowland wet forest in Costa Rica. <i>Plant and Soil</i> , 2009, 318, 47-61.	3.7	55
81	Possible source of ancient carbon in phytolith concentrates from harvested grasses. <i>Biogeosciences</i> , 2012, 9, 1873-1884.	3.3	55
82	Embracing a new paradigm for temperature sensitivity of soil microbes. <i>Global Change Biology</i> , 2020, 26, 3221-3229.	9.5	54
83	Lifespans of fungal rhizomorphs under nitrogen fertilization in a pinyon-juniper woodland. <i>Plant and Soil</i> , 2005, 270, 249-255.	3.7	53
84	Decreases in soil moisture and organic matter quality suppress microbial decomposition following a boreal forest fire. <i>Soil Biology and Biochemistry</i> , 2015, 87, 1-9.	8.8	49
85	Ectomycorrhizal fungi: A new source of atmospheric methyl halides?. <i>Global Change Biology</i> , 2004, 10, 1009-1016.	9.5	45
86	Belowground responses to elevation in a changing cloud forest. <i>Ecology and Evolution</i> , 2016, 6, 1996-2009.	1.9	42
87	Shifts in fungal communities during decomposition of boreal forest litter. <i>Fungal Ecology</i> , 2014, 10, 58-69.	1.6	40
88	RESPONSES OF SOIL BIOTA TO ELEVATED CO <sub>2</sub> IN A CHAPARRAL ECOSYSTEM. , 2005, 15, 1701-1711.		39
89	Quantifying fire-wide carbon emissions in interior Alaska using field measurements and Landsat imagery. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1608-1629.	3.0	39
90	<i>Neurospora discreta</i> as a model to assess adaptation of soil fungi to warming. <i>BMC Evolutionary Biology</i> , 2015, 15, 198.	3.2	34

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91	Soil Metatranscriptomes Under Long-Term Experimental Warming and Drying: Fungi Allocate Resources to Cell Metabolic Maintenance Rather Than Decay. <i>Frontiers in Microbiology</i> , 2019, 10, 1914.	3.5	34
92	Decomposition of recalcitrant carbon under experimental warming in boreal forest. <i>PLoS ONE</i> , 2017, 12, e0179674.	2.5	34
93	Species-specific measurements of ectomycorrhizal turnover under N-fertilization: combining isotopic and genetic approaches. <i>Oecologia</i> , 2004, 138, 419-425.	2.0	33
94	Model behavior of arbuscular mycorrhizal fungi: predicting soil carbon dynamics under climate change. <i>Botany</i> , 2016, 94, 417-423.	1.0	33
95	Fungal host specificity is not a bottleneck for the germination of <i>Pyrenopeziza</i> species ( <i>Ericaceae</i> ) in a <i>Brevifolia</i> forest. <i>Molecular Ecology</i> , 2013, 22, 1473-1481.	3.9	28
96	Extracellular enzyme activity in the mycorrhizospheres of a boreal fire chronosequence. <i>Pedobiologia</i> , 2012, 55, 121-127.	1.2	27
97	Slow turnover and production of fungal hyphae during a Californian dry season. <i>Soil Biology and Biochemistry</i> , 2010, 42, 1657-1660.	8.8	26
98	Drought increases the frequencies of fungal functional genes related to carbon and nitrogen acquisition. <i>PLoS ONE</i> , 2018, 13, e0206441.	2.5	24
99	Arbuscular mycorrhizal inoculation in coastal sage scrub restoration. <i>Botany</i> , 2016, 94, 493-499.	1.0	23
100	Decreased mass specific respiration under experimental warming is robust to the microbial biomass method employed. <i>Ecology Letters</i> , 2009, 12, E15.	6.4	19
101	Density dependence and interspecific interactions between arbuscular mycorrhizal fungi mediated plant growth, glomalin production, and sporulation. <i>Canadian Journal of Botany</i> , 2007, 85, 63-75.	1.1	18
102	The Predictive Power of Ecological Niche Modeling for Global Arbuscular Mycorrhizal Fungal Biogeography. <i>Ecological Studies</i> , 2017, , 143-158.	1.2	18
103	Nitrogen enrichment shifts functional genes related to nitrogen and carbon acquisition in the fungal community. <i>Soil Biology and Biochemistry</i> , 2018, 123, 87-96.	8.8	17
104	Temperature acclimation and adaptation of enzyme physiology in <i>Neurospora discreta</i> . <i>Fungal Ecology</i> , 2018, 35, 78-86.	1.6	17
105	Harnessing cross-border resources to confront climate change. <i>Environmental Science and Policy</i> , 2018, 87, 128-132.	4.9	16
106	Nutrient Acquisition Strategies of Fungi and Their Relation to Elevated Atmospheric CO <sub>2</sub> . <i>Mycology</i> , 2005, , 713-731.	0.5	15
107	Initial Phylogenetic Relatedness of Saprotrophic Fungal Communities Affects Subsequent Litter Decomposition Rates. <i>Microbial Ecology</i> , 2015, 69, 748-757.	2.8	13
108	Fluorescent nanoparticles as tools in ecology and physiology. <i>Biological Reviews</i> , 2021, 96, 2392-2424.	10.4	13

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109	Dishing the dirt on carbon cycling. <i>Nature Climate Change</i> , 2011, 1, 144-146.	18.8	11
110	Links between plant and fungal diversity in habitat fragments of coastal shrubland. <i>PLoS ONE</i> , 2017, 12, e0184991.	2.5	11
111	Fungi in the Canopy: How Soil Fungi and Extracellular Enzymes Differ Between Canopy and Ground Soils. <i>Ecosystems</i> , 2020, 23, 768-782.	3.4	11
112	Uptake of an amino acid by ectomycorrhizal fungi in a boreal forest. <i>Soil Biology and Biochemistry</i> , 2008, 40, 1964-1966.	8.8	10
113	Microbial community response to a decade of simulated global changes depends on the plant community. <i>Elementa</i> , 2021, 9, .	3.2	10
114	Effects of Soil Nutrient Availability on Investment in Acquisition of N and P in Hawaiian Rain Forests. <i>Ecology</i> , 2001, 82, 946.	3.2	10
115	BLACK BOXES AND MISSING SINKS: FUNGI IN GLOBAL CHANGE RESEARCH. <i>Mycological Research</i> , 2000, 104, 1281-1283.	2.5	7
116	Radiocarbon – a low-impact tool to study nutrient transport by soil fungi under field conditions. <i>New Phytologist</i> , 2005, 166, 595-600.	7.3	7
117	Carbon budgets for soil and plants respond to long-term warming in an Alaskan boreal forest. <i>Biogeochemistry</i> , 2020, 150, 345-353.	3.5	7
118	Quantum Dots Reveal Shifts in Organic Nitrogen Uptake by Fungi Exposed to Long-Term Nitrogen Enrichment. <i>PLoS ONE</i> , 2015, 10, e0138158.	2.5	7
119	Exploring Trait Trade-Offs for Fungal Decomposers in a Southern California Grassland. <i>Frontiers in Microbiology</i> , 2021, 12, 655987.	3.5	6
120	Phenotypic plasticity of fungal traits in response to moisture and temperature. <i>ISME Communications</i> , 2021, 1, .	4.2	6
121	Nutrient and stress tolerance traits linked to fungal responses to global change. <i>Elementa</i> , 2021, 9, .	3.2	5
122	Coccidioidomycosis (Valley Fever) Case Data for the Southwestern United States. <i>Open Health Data</i> , 2020, 7, 1.	3.7	5
123	Invasive Plant Management Techniques Alter Arbuscular Mycorrhizal Fungi. <i>Ecological Restoration</i> , 2016, 34, 209-215.	0.8	4
124	The future of microbial ecological niche theory and modeling. <i>New Phytologist</i> , 2021, 231, 508-511.	7.3	3
125	Trade-Offs Between Growth Rate and Other Fungal Traits. <i>Frontiers in Forests and Global Change</i> , 2021, 4, .	2.3	2
126	Trait relationships of fungal decomposers in response to drought using a dual field and laboratory approach. <i>Ecosphere</i> , 2022, 13, .	2.2	2

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127	Unearthing ectomycorrhizal dynamics. <i>New Phytologist</i> , 2005, 166, 358-359.	7.3	1
128	Functional Diversity in Resource Use By Fungi. <i>Ecology</i> , 2010, 91, 100319061621033.	3.2	1