Jeff R Powell

List of Publications by Year
in descending order

117 papers	7,145 citations	61984 43 h-index	64796 79 g-index
124 all docs	124 docs citations	124 times ranked	9463 citing authors

#	Article	IF	Citations
1	Ecological stoichiometry and fungal community turnover reveal variation among mycorrhizal partners in their responses to warming and drought. Molecular Ecology, 2023, 32, 229-243.	3.9	4
2	Interactions between silicon and alkaloid defences in endophyteâ€infected grasses and the consequences for a folivore. Functional Ecology, 2022, 36, 249-261.	3.6	7
3	Initial wood trait variation overwhelms endophyte community effects for explaining decay trajectories. Functional Ecology, 2022, 36, 1243-1257.	3.6	2
4	Benefits of silicon-enhanced root nodulation in a model legume are contingent upon rhizobial efficacy. Plant and Soil, 2022, 477, 201-217.	3.7	7
5	Silicon accumulation suppresses arbuscular mycorrhizal fungal colonisation in the model grass Brachypodium distachyon. Plant and Soil, 2022, 477, 219-232.	3.7	4
6	Climate warming negates arbuscular mycorrhizal fungal reductions in soil phosphorus leaching with tall fescue but not lucerne. Soil Biology and Biochemistry, 2021, 152, 108075.	8.8	15
7	Advances in understanding arbuscular mycorrhizal fungal effects on soil nutrient cycling. Burleigh Dodds Series in Agricultural Science, 2021, , 195-212.	0.2	2
8	The influence of roots on mycorrhizal fungi, saprotrophic microbes and carbon dynamics in a lowâ€phosphorus Eucalyptus forest under elevated CO 2. Functional Ecology, 2021, 35, 2056-2071.	3.6	6
9	Assembly processes lead to divergent soil fungal communities within and among 12 forest ecosystems along a latitudinal gradient. New Phytologist, 2021, 231, 1183-1194.	7.3	20
10	Arbuscular mycorrhizal fungal-mediated reductions in N2O emissions were not impacted by experimental warming for two common pasture species. Pedobiologia, 2021, 87-88, 150744.	1.2	1
11	Silicon enrichment alters functional traits in legumes depending on plant genotype and symbiosis with nitrogenâ€fixing bacteria. Functional Ecology, 2021, 35, 2856-2869.	3.6	11
12	AusTraits, a curated plant trait database for the Australian flora. Scientific Data, 2021, 8, 254.	5.3	73
13	Extraction and Purification of DNA from Wood at Various Stages of Decay for Metabarcoding of Wood-Associated Fungi. Methods in Molecular Biology, 2021, 2232, 113-122.	0.9	2
14	Increases in aridity lead to drastic shifts in the assembly of dryland complex microbial networks. Land Degradation and Development, 2020, 31, 346-355.	3.9	23
15	Temporal dynamics of mycorrhizal fungal communities and coâ€associations with grassland plant communities following experimental manipulation of rainfall. Journal of Ecology, 2020, 108, 515-527.	4.0	32
16	Biogeography of arbuscular mycorrhizal fungal spore traits along an aridity gradient, and responses to experimental rainfall manipulation. Fungal Ecology, 2020, 46, 100899.	1.6	23
17	Finding fungal ecological strategies: Is recycling an option?. Fungal Ecology, 2020, 46, 100902.	1.6	8
18	Aboveground resource allocation in response to root herbivory as affected by the arbuscular mycorrhizal symbiosis. Plant and Soil, 2020, 447, 463-473.	3.7	19

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19	Fungal functional ecology: bringing a traitâ€based approach to plantâ€associated fungi. Biological Reviews, 2020, 95, 409-433.	10.4	171
20	Metabarcoding mites: Three years of elevated CO2 has no effect on oribatid assemblages in a Eucalyptus woodland. Pedobiologia, 2020, 81-82, 150667.	1.2	8
21	Reciprocal Effects of Silicon Supply and Endophytes on Silicon Accumulation and EpichloÃ« Colonization in Grasses. Frontiers in Plant Science, 2020, 11, 593198.	3.6	5
22	Myristate and the ecology of AM fungi: significance, opportunities, applications and challenges. New Phytologist, 2020, 227, 1610-1614.	7.3	13
23	The fate of carbon in a mature forest under carbon dioxide enrichment. Nature, 2020, 580, 227-231.	27.8	218
24	Impacts of elevated carbon dioxide on carbon gains and losses from soil and associated microbes in a Eucalyptus woodland. Soil Biology and Biochemistry, 2020, 143, 107734.	8.8	6
25	Is it time to include legumes in plant silicon research?. Functional Ecology, 2020, 34, 1142-1157.	3.6	34
26	Environmental cues for dispersal in a filamentous fungus in simulated islands. Oikos, 2020, 129, 1084-1092.	2.7	2
27	Soil physico-chemical properties are critical for predicting carbon storage and nutrient availability across Australia. Environmental Research Letters, 2020, 15, 094088.	5.2	22
28	Resource allocation to growth or luxury consumption drives mycorrhizal responses. Ecology Letters, 2019, 22, 1757-1766.	6.4	29
29	Distributional shifts in ectomycorrizhal fungal communities lag behind climate-driven tree upward migration in a conifer forest-high elevation shrubland ecotone. Soil Biology and Biochemistry, 2019, 137, 107545.	8.8	12
30	A review of peer-review for Pedobiologia â€" Journal of Soil Ecology. Pedobiologia, 2019, 77, 150588.	1.2	3
31	The mycobiome of Australian tree hollows in relation to theCryptococcus gattiiandC.Âneoformansspecies complexes. Ecology and Evolution, 2019, 9, 9684-9700.	1.9	7
32	Good neighbors aplenty: fungal endophytes rarely exhibit competitive exclusion patterns across a span of woody habitats. Ecology, 2019, 100, e02790.	3.2	18
33	When to cut your losses: Dispersal allocation in an asexual filamentous fungus in response to competition. Ecology and Evolution, 2019, 9, 4129-4137.	1.9	7
34	Delving into the dark ecology: A continent-wide assessment of patterns of composition in soil fungal communities from Australian tussock grasslands. Fungal Ecology, 2019, 39, 356-370.	1.6	8
35	A soil fungal metacommunity perspective reveals stronger and more localised interactions above the tree line of an alpine/subalpine ecotone. Soil Biology and Biochemistry, 2019, 135, 1-9.	8.8	4
36	Bridging reproductive and microbial ecology: a case study in arbuscular mycorrhizal fungi. ISME Journal, 2019, 13, 873-884.	9.8	43

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37	Potentials and pitfalls in the analysis of bipartite networks to understand plantâ€"microbe interactions in changing environments. Functional Ecology, 2019, 33, 107-117.	3.6	24
38	Experimentally altered rainfall regimes and host root traits affect grassland arbuscular mycorrhizal fungal communities. Molecular Ecology, 2018, 27, 2152-2163.	3.9	58
39	Biodiversity of arbuscular mycorrhizal fungi and ecosystem function. New Phytologist, 2018, 220, 1059-1075.	7.3	288
40	Ecological drivers of soil microbial diversity and soil biological networks in the Southern Hemisphere. Ecology, 2018, 99, 583-596.	3.2	152
41	Mycorrhizal fungi enhance nutrient uptake but disarm defences in plant roots, promoting plant-parasitic nematode populations. Soil Biology and Biochemistry, 2018, 126, 123-132.	8.8	58
42	Towards robust and repeatable sampling methods in <scp>eDNA</scp>â€based studies. Molecular Ecology Resources, 2018, 18, 940-952.	4.8	137
43	Species but not genotype diversity strongly impacts the establishment of rare colonisers. Functional Ecology, 2017, 31, 1462-1470.	3.6	5
44	Elevated CO2 does not increase eucalypt forest productivity on a low-phosphorus soil. Nature Climate Change, 2017, 7, 279-282.	18.8	198
45	Dryland forest management alters fungal community composition and decouples assembly of root- and soil-associated fungal communities. Soil Biology and Biochemistry, 2017, 109, 14-22.	8.8	39
46	Priorities for research in soil ecology. Pedobiologia, 2017, 63, 1-7.	1.2	64
47	Host plant colonisation by arbuscular mycorrhizal fungi stimulates immune function whereas high root silicon concentrations diminish growth in a soil-dwelling herbivore. Soil Biology and Biochemistry, 2017, 112, 117-126.	8.8	47
48	First report of oomycetes associated with the invasive tree Parkinsonia aculeata (Family: Fabaceae). Australasian Plant Pathology, 2017, 46, 313-321.	1.0	3
49	Circular linkages between soil biodiversity, fertility and plant productivity are limited to topsoil at the continental scale. New Phytologist, 2017, 215, 1186-1196.	7.3	103
50	Triggering dieback in an invasive plant: endophyte diversity and pathogenicity. Australasian Plant Pathology, 2017, 46, 157-170.	1.0	14
51	Resolution of respect for Ekkehard von TÃ¶rne (1925â€"2017). Pedobiologia, 2017, 64, 40-41.	1.2	0
52	Arbuscular mycorrhizal fungi promote silicon accumulation in plant roots, reducing the impacts of root herbivory. Plant and Soil, 2017, 419, 423-433.	3.7	43
53	Root type is not an important driver of mycorrhizal colonisation in Brachypodium distachyon. Pedobiologia, 2017, 65, 5-15.	1.2	13
54	Plant trait effects on soil organisms and functions. Pedobiologia, 2017, 65, 1-4.	1.2	20

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55	Relationships between mycorrhizal type and leaf flammability in the Australian flora. Pedobiologia, 2017, 65, 43-49.	1.2	7
56	Fine endophytes (<i>Glomus tenue</i>) are related to Mucoromycotina, not Glomeromycota. New Phytologist, 2017, 213, 481-486.	7.3	101
57	Conservation by translocation: establishment of Wollemi pine and associated microbial communities in novel environments. Plant and Soil, 2017, 411, 209-225.	3.7	11
58	Environmental and Geographical Factors Structure Soil Microbial Diversity in New Caledonian Ultramafic Substrates: A Metagenomic Approach. PLoS ONE, 2016, 11, e0167405.	2.5	49
59	Variations in nitrogen use efficiency reflect the biochemical subtype while variations in water use efficiency reflect the evolutionary lineage of C₄ grasses at interâ€glacial CO₂. Plant, Cell and Environment, 2016, 39, 514-526.	5.7	36
60	An insect ecosystem engineer alleviates drought stress in plants without increasing plant susceptibility to an aboveâ€ground herbivore. Functional Ecology, 2016, 30, 894-902.	3.6	39
61	Introducing BASE: the Biomes of Australian Soil Environments soil microbial diversity database. GigaScience, 2016, 5, 21.	6.4	204
62	Intraspecific competition between ectomycorrhizal<i>Pisolithus microcarpus</i>isolates impacts plant and fungal performance under elevated CO₂and temperature. FEMS Microbiology Ecology, 2016, 92, fiw113.	2.7	12
63	Soil microbes and community coalescence. Pedobiologia, 2016, 59, 37-40.	1.2	61
64	Soil microbial communities influence seedling growth of a rare conifer independent of plantâ€œsoil feedback. Ecology, 2016, 97, 3346-3358.	3.2	10
65	Trade-Offs between Silicon and Phenolic Defenses may Explain Enhanced Performance of Root Herbivores on Phenolic-Rich Plants. Journal of Chemical Ecology, 2016, 42, 768-771.	1.8	71
66	Endophyte community composition is associated with dieback occurrence in an invasive tree. Plant and Soil, 2016, 405, 311-323.	3.7	16
67	Improved <scp><i>Phytophthora</i></scp> resistance in commercial chickpea (<scp><i>Cicer) Tj ETQq1 1 0.784314 rgBT /Overlock 10 some varieties. Plant, Cell and Environment, 2016, 39, 1858-1869.	5.7	20
68	Variation in soil microbial communities associated with critically endangered Wollemi pine affects fungal, but not bacterial, assembly within seedling roots. Pedobiologia, 2016, 59, 61-71.	1.2	10
69	Unpredictable assembly of arbuscular mycorrhizal fungal communities. Pedobiologia, 2016, 59, 11-15.	1.2	57
70	Impact of forest management practices on soil bacterial diversity and consequences for soil processes. Soil Biology and Biochemistry, 2016, 94, 200-210.	8.8	56
71	Deterministic processes vary during community assembly for ecologically dissimilar taxa. Nature Communications, 2015, 6, 8444.	12.8	278
72	Microbial functional diversity enhances predictive models linking environmental parameters to ecosystem properties. Ecology, 2015, 96, 1985-1993.	3.2	61

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73	Response of belowground communities to short-term phosphorus addition inÂa phosphorus-limited woodland. Plant and Soil, 2015, 391, 321-331.	3.7	47
74	Interchange of entire communities: microbial community coalescence. Trends in Ecology and Evolution, 2015, 30, 470-476.	8.7	210
75	Branching out: Towards a trait-based understanding of fungal ecology. Fungal Biology Reviews, 2015, 29, 34-41.	4.7	118
76	From patterns to causal understanding: Structural equation modeling (SEM) in soil ecology. Pedobiologia, 2015, 58, 65-72.	1.2	287
77	Comparative Herbivory Rates and Secondary Metabolite Profiles in the Leaves of Native and Non-Native Lonicera Species. Journal of Chemical Ecology, 2015, 41, 1069-1079.	1.8	14
78	Tree diversity modifies distanceâ€dependent effects on seedling emergence but not plantâ€“soil feedbacks of temperate trees. Ecology, 2015, 96, 1529-1539.	3.2	10
79	The role of stochasticity differs in the assembly of soil- and root-associated fungal communities. Soil Biology and Biochemistry, 2015, 80, 18-25.	8.8	61
80	Determinants of rootâ€associated fungal communities within <scp>A</scp>steraceae in a semiâ€arid grassland. Journal of Ecology, 2014, 102, 425-436.	4.0	62
81	Method or madness: does <scp>OTU</scp> delineation bias our perceptions of fungal ecology?. New Phytologist, 2014, 202, 1095-1097.	7.3	7
82	Ecological understanding of root-infecting fungi using trait-based approaches. Trends in Plant Science, 2014, 19, 432-438.	8.8	68
83	The Leinster and Cobbold indices improve inferences about microbial diversity. Fungal Ecology, 2014, 11, 1-7.	1.6	15
84	Recent trends and future strategies in soil ecological researchâ€"Integrative approaches at Pedobiologia. Pedobiologia, 2014, 57, 1-3.	1.2	17
85	A new tool of the trade: plant-trait based approaches in microbial ecology. Plant and Soil, 2013, 365, 35-40.	3.7	16
86	The effect of environmental and phylogenetic drivers on community assembly in an alpine meadow community. Ecology, 2012, 93, 2321-2328.	3.2	34
87	Compositional divergence and convergence in arbuscular mycorrhizal fungal communities. Ecology, 2012, 93, 1115-1124.	3.2	65
88	Plantâ€“microbe interactions: novel applications for exploitation in multipurpose remediation technologies. Trends in Biotechnology, 2012, 30, 416-420.	9.3	242
89	Mycorrhizal responsiveness trends in annual crop plants and their wild relativesâ€"a meta-analysis on studies from 1981 to 2010. Plant and Soil, 2012, 355, 231-250.	3.7	116
90	Accounting for uncertainty in species delineation during the analysis of environmental DNA sequence data. Methods in Ecology and Evolution, 2012, 3, 1-11.	5.2	62

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91	Compositional Divergence and Convergence in Local Communities and Spatially Structured Landscapes. PLoS ONE, 2012, 7, e35942.	2.5	14
92	Evolutionary criteria outperform operational approaches in producing ecologically relevant fungal species inventories. Molecular Ecology, 2011, 20, 655-666.	3.9	76
93	Distinguishing Defensive Characteristics in the Phloem of Ash Species Resistant and Susceptible to Emerald Ash Borer. Journal of Chemical Ecology, 2011, 37, 450-459.	1.8	62
94	Indigenous Arbuscular Mycorrhizal Fungal Assemblages Protect Grassland Host Plants from Pathogens. PLoS ONE, 2011, 6, e27381.	2.5	35
95	How novel are the chemical weapons of garlic mustard in North American forest understories?. Biological Invasions, 2010, 12, 3465-3471.	2.4	57
96	Deciphering the relative contributions of multiple functions within plantâ€“microbe symbioses. Ecology, 2010, 91, 1591-1597.	3.2	85
97	Plant pathogen protection by arbuscular mycorrhizas: A role for fungal diversity?. Pedobiologia, 2010, 53, 197-201.	1.2	228
98	Phylogenetic trait conservatism and the evolution of functional trade-offs in arbuscular mycorrhizal fungi. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 4237-4245.	2.6	283
99	Roundup ReadyÃ‚Â®soybean gene concentrations in field soil aggregate size classes. FEMS Microbiology Letters, 2009, 291, 175-179.	1.8	3
100	Separating the effect of crop from herbicide on soil microbial communities in glyphosate-resistant corn. Pedobiologia, 2009, 52, 253-262.	1.2	53
101	Effect of glyphosate on the tripartite symbiosis formed by Glomus intraradices, Bradyrhizobium japonicum, and genetically modified soybean. Applied Soil Ecology, 2009, 41, 128-136.	4.3	44
102	Detection of transgenic cp4 epsps genes in the soil food web. Agronomy for Sustainable Development, 2009, 29, 497-501.	5.3	22
103	Effects of genetically modified, herbicideâ€tolerant crops and their management on soil food web properties and crop litter decomposition. Journal of Applied Ecology, 2009, 46, 388-396.	4.0	53
104	A critique of studies evaluating glyphosate effects on diseases associated withâ€‚<i>Fusarium</i>â€‚spp.. Weed Research, 2008, 48, 307-318.	1.7	27
105	Factors Affecting the Presence and Persistence of Plant DNA in the Soil Environment in Corn and Soybean Rotations. Weed Science, 2008, 56, 767-774.	1.5	7
106	Real-Time Polymerase Chain Reaction Monitoring of Recombinant DNA Entry into Soil from Decomposing Roundup Ready Leaf Biomass. Journal of Agricultural and Food Chemistry, 2008, 56, 6339-6347.	5.2	13
107	Mycorrhizal and Rhizobial Colonization of Genetically Modified and Conventional Soybeans. Applied and Environmental Microbiology, 2007, 73, 4365-4367.	3.1	46
108	THE ECOLOGY OF PLANTâ€“MICROBIAL MUTUALISMS. , 2007, , 257-281.		7

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109	Linking Soil Organisms Within Food Webs to Ecosystem Functioning and Environmental Change. Advances in Agronomy, 2007, , 307-350.	5.2	18
110	Quantification and Persistence of Recombinant DNA of Roundup Ready Corn and Soybean in Rotation. Journal of Agricultural and Food Chemistry, 2007, 55, 10226-10231.	5.2	10
111	An empirical approach to target DNA quantification in environmental samples using real-time polymerase chain reactions. Soil Biology and Biochemistry, 2007, 39, 1956-1967.	8.8	7
112	Cycling of extracellular DNA in the soil environment. Soil Biology and Biochemistry, 2007, 39, 2977-2991.	8.8	382
113	Invasive Plant Suppresses the Growth of Native Tree Seedlings by Disrupting Belowground Mutualisms. PLoS Biology, 2006, 4, e140.	5.6	621
114	Abrupt rise in atmospheric CO2 overestimates community response in a model plantâ€"soil system. Nature, 2005, 433, 621-624.	27.8	171
115	Quantitation of Transgenic Plant DNA in Leachate Water:Â Real-Time Polymerase Chain Reaction Analysis. Journal of Agricultural and Food Chemistry, 2005, 53, 5858-5865.	5.2	35
116	Interguild antagonism between biological controls: impact of entomopathogenic nematode application on an aphid predator, Aphidoletes aphidimyza (Diptera: Cecidomyiidae). Biological Control, 2004, 30, 110-118.	3.0	15
117	High habitat-specificity in fungal communities in oligo-mesotrophic, temperate Lake Stechlin (North-East Germany). MycoKeys, 0, 16, 17-44.	1.9	68