David Johnson

List of Publications by Year
in descending order

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74

papers

6,267

citations

126708

33

h-index

82410

72

g-index

74

all docs

74

docs citations

74

times ranked

10549

citing authors

#	ARTICLE	IF	CITATIONS
1	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	4.2	1,038
2	Identification of 100 fundamental ecological questions. Journal of Ecology, 2013, 101, 58-67.	1.9	605
3	Networks of power and influence: the role of mycorrhizal mycelium in controlling plant communities and agroecosystem functioning. Canadian Journal of Botany, 2004, 82, 1016-1045.	1.2	534
4	Plant communities affect arbuscular mycorrhizal fungal diversity and community composition in grassland microcosms. New Phytologist, 2004, 161, 503-515.	3.5	324
5	Linkages of plant traits to soil properties and the functioning of temperate grassland. Journal of Ecology, 2010, 98, 1074-1083.	1.9	308
6	Underground signals carried through common mycelial networks warn neighbouring plants of aphid attack. Ecology Letters, 2013, 16, 835-843.	3.0	305
7	Root traits as drivers of plant and ecosystem functioning: current understanding, pitfalls and future research needs. New Phytologist, 2021, 232, 1123-1158.	3.5	277
8	Predicting the structure of soil communities from plant community taxonomy, phylogeny, and traits. ISME Journal, 2018, 12, 1794-1805.	4.4	210
9	Carbon fluxes from plants through soil organisms determined by field 13CO2 pulse-labelling in an upland grassland. Applied Soil Ecology, 2006, 33, 152-175.	2.1	164
10	The importance of individuals: intraspecific diversity of mycorrhizal plants and fungi in ecosystems. New Phytologist, 2012, 194, 614-628.	3.5	157
11	Soil Invertebrates Disrupt Carbon Flow Through Fungal Networks. Science, 2005, 309, 1047-1047.	6.0	135
12	High nitrogen deposition alters the decomposition of bog plant litter and reduces carbon accumulation. Global Change Biology, 2012, 18, 1163-1172.	4.2	113
13	Interplant signalling through hyphal networks. New Phytologist, 2015, 205, 1448-1453.	3.5	113
14	Arbuscular mycorrhizal fungi and aphids interact by changing host plant quality and volatile emission. Functional Ecology, 2014, 28, 375-385.	1.7	103
15	Arctic microorganisms respond more to elevated UV-B radiation than CO2. Nature, 2002, 416, 82-83.	13.7	102
16	Partitioning of soil phosphorus among arbuscular and ectomycorrhizal trees in tropical and subtropical forests. Ecology Letters, 2018, 21, 713-723.	3.0	97
17	Turnover of labile and recalcitrant soil carbon differ in response to nitrate and ammonium deposition in an ombrotrophic peatland. Global Change Biology, 2010, 16, 2307-2321.	4.2	86
18	Soil fungal networks maintain local dominance of ectomycorrhizal trees. Nature Communications, 2020, 11, 2636.	5.8	81

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19	Reciprocal carbon and nitrogen transfer between an ericaceous dwarf shrub and fungi isolated from <i> Piceirhiza bicolorata</i> ectomycorrhizas. New Phytologist, 2009, 182, 359-366.	3.5	80
20	New insights into the mycorrhizal <i>Rhizoscyphus ericae</i> aggregate: spatial structure and coâ€colonization of ectomycorrhizal and ericoid roots. New Phytologist, 2010, 188, 210-222.	3.5	80
21	How do plants regulate the function, community structure, and diversity of mycorrhizal fungi?. Journal of Experimental Botany, 2005, 56, 1751-1760.	2.4	74
22	Root traits predict decomposition across a landscapeâ€scale grazing experiment. New Phytologist, 2014, 203, 851-862.	3.5	73
23	Relationships between plant traits, soil properties and carbon fluxes differ between monocultures and mixed communities in temperate grassland. Journal of Ecology, 2019, 107, 1704-1719.	1.9	56
24	Long-term nitrogen deposition increases phosphorus limitation of bryophytes in an ombrotrophic bog. Plant Ecology, 2008, 196, 111-121.	0.7	52
25	Plant community composition, not diversity, regulates soil respiration in grasslands. Biology Letters, 2008, 4, 345-348.	1.0	52
26	Nitrous oxide production by the ectomycorrhizal fungi Paxillus involutus and Tylospora fibrillosa. FEMS Microbiology Letters, 2011, 316, 31-35.	0.7	50
27	Contribution of plant photosynthate to soil respiration and dissolved organic carbon in a naturally recolonising cutover peatland. Soil Biology and Biochemistry, 2008, 40, 1622-1628.	4.2	48
28	Response of terrestrial microorganisms to ultraviolet-B radiation inÂecosystems. Research in Microbiology, 2003, 154, 315-320.	1.0	44
29	Arbuscular mycorrhizal fungi reduce the differences in competitiveness between dominant and subordinate plant species. Mycorrhiza, 2013, 23, 267-277.	1.3	44
30	Interactions among fungal community structure, litter decomposition and depth of water table in a cutover peatland. FEMS Microbiology Ecology, 2008, 64, 433-448.	1.3	42
31	Using plant, microbe, and soil fauna traits to improve the predictive power of biogeochemical models. Methods in Ecology and Evolution, 2019, 10, 146-157.	2.2	41
32	Increasing phosphorus supply is not the mechanism by which arbuscular mycorrhiza increase attractiveness of bean (Vicia faba) to aphids. Journal of Experimental Botany, 2014, 65, 5231-5241.	2.4	37
33	Does genotypic and species diversity of mycorrhizal plants and fungi affect ecosystem function?. New Phytologist, 2018, 220, 1122-1128.	3.5	37
34	Drought decreases incorporation of recent plant photosynthate into soil food webs regardless of their trophic complexity. Global Change Biology, 2019, 25, 3549-3561.	4.2	37
35	Species-specific effects of plants colonising cutover peatlands on patterns of carbon source utilisation by soil microorganisms. Soil Biology and Biochemistry, 2008, 40, 544-549.	4.2	33
36	Litter type, but not plant cover, regulates initial litter decomposition and fungal community structure in a recolonising cutover peatland. Soil Biology and Biochemistry, 2009, 41, 651-655.	4.2	31

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37	Underground allies: How and why do mycelial networks help plants defend themselves?. BioEssays, 2014, 36, 21-26.	1.2	29
38	Plant-mediated â€˜apparent effectsâ€™ between mycorrhiza and insect herbivores. Current Opinion in Plant Biology, 2015, 26, 100-105.	3.5	29
39	How rapid is aphid-induced signal transfer between plants via common mycelial networks?. Communicative and Integrative Biology, 2013, 6, e25904.	0.6	28
40	Intraspecific Diversity Regulates Fungal Productivity and Respiration. PLoS ONE, 2010, 5, e12604.	1.1	28
41	Optimizing Carbon Storage Within a Spatially Heterogeneous Upland Grassland Through Sheep Grazing Management. Ecosystems, 2014, 17, 418-429.	1.6	27
42	Contrasting effects of intraâ€•and interspecific identity and richness of ectomycorrhizal fungi on host plants, nutrient retention and multifunctionality. New Phytologist, 2017, 213, 852-863.	3.5	26
43	Soil fungal networks moderate densityâ€•dependent survival and growth of seedlings. New Phytologist, 2021, 230, 2061-2071.	3.5	26
44	Sustaining ecosystem services in ancient limestone grassland: importance of major component plants and community composition. Journal of Ecology, 2008, 96, 894-902.	1.9	25
45	Species richness of ectomycorrhizal hyphal necromass increases soil CO2 efflux under laboratory conditions. Soil Biology and Biochemistry, 2011, 43, 1350-1355.	4.2	24
46	Partitioning of soil phosphorus regulates competition between <i>Vaccinium vitisâ€•idaea</i> and <i>Deschampsia cespitosa</i>. Ecology and Evolution, 2013, 3, 4243-4252.	0.8	24
47	Plant genotypic diversity does not beget root-fungal species diversity. Plant and Soil, 2010, 336, 107-111.	1.8	23
48	Priorities for research on priority effects. New Phytologist, 2015, 205, 1375-1377.	3.5	23
49	Mineralisation of carbon and plant uptake of phosphorus from microbially-derived organic matter in response to 19Âyears simulated nitrogen deposition. Plant and Soil, 2010, 326, 311-319.	1.8	22
50	Five years of simulated atmospheric nitrogen deposition have only subtle effects on the fate of newly synthesized carbon in Calluna vulgaris and Eriophorum vaginatum. Soil Biology and Biochemistry, 2011, 43, 495-502.	4.2	21
51	Chewing up the Wood-Wide Web: Selective Grazing on Ectomycorrhizal Fungi by Collembola. Forests, 2015, 6, 2560-2570.	0.9	21
52	Drought alters carbon fluxes in alpine snowbed ecosystems through contrasting impacts on graminoids and forbs. New Phytologist, 2011, 190, 740-749.	3.5	17
53	Species richness and nitrogen supply regulate the productivity and respiration of ectomycorrhizal fungi in pure culture. Fungal Ecology, 2012, 5, 211-222.	0.7	17
54	Rhizosphere allocation by canopyâ€•forming species dominates soil CO₂ efflux in a subarctic landscape. New Phytologist, 2020, 227, 1818-1830.	3.5	16

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55	Combination of herbivore removal and nitrogen deposition increases upland carbon storage. Global Change Biology, 2015, 21, 3036-3048.	4.2	15
56	Strain Identity of the Ectomycorrhizal Fungus Laccaria bicolor Is More Important than Richness in Regulating Plant and Fungal Performance under Nutrient Rich Conditions. Frontiers in Microbiology, 2017, 8, 1874.	1.5	15
57	Can common mycorrhizal fungal networks be managed to enhance ecosystem functionality?. Plants People Planet, 2021, 3, 433-444.	1.6	15
58	Nitrogen deposition, vegetation burning and climate warming act independently on microbial community structure and enzyme activity associated with decomposing litter in lowâ€alpine heath. Global Change Biology, 2010, 16, 3120-3132.	4.2	14
59	Legacy effects of nitrogen and phosphorus additions on vegetation and carbon stocks of upland heaths. New Phytologist, 2020, 228, 226-237.	3.5	14
60	Evolutionary betâ€hedging in arbuscular mycorrhizaâ€associating angiosperms. New Phytologist, 2022, 233, 1984-1987.	3.5	14
61	Limited effects of the maternal rearing environment on the behaviour and fitness of an insect herbivore and its natural enemy. PLoS ONE, 2019, 14, e0209965.	1.1	13
62	Mycorrhizas for a changing world: Sustainability, conservation, and society. Plants People Planet, 2020, 2, 98-103.	1.6	13
63	Direct and indirect effects of ammonia, ammonium and nitrate on phosphatase activity and carbon fluxes from decomposing litter in peatland. Environmental Pollution, 2010, 158, 3157-3163.	3.7	12
64	Genotype identity determines productivity and CO2 efflux across a genotype-species gradient of ectomycorrhizal fungi. Fungal Ecology, 2012, 5, 571-580.	0.7	7
65	Water, water everywhere â€¦ but how does it affect the functional diversity of ectomycorrhizal fungi?. New Phytologist, 2018, 220, 950-951.	3.5	7
66	Milling plant and soil material in plastic tubes over-estimates carbon and under-estimates nitrogen concentrations. Plant and Soil, 2013, 369, 509-513.	1.8	6
67	Traitâ€directed de novo population transcriptome dissects genetic regulation of a balanced polymorphism in phosphorus nutrition/arsenate tolerance in a wild grass, H olcus lanatus. New Phytologist, 2014, 201, 144-154.	3.5	6
68	Soil Fungal Community Characteristics and Mycelial Production Across a Disturbance Gradient in Lowland Dipterocarp Rainforest in Borneo. Frontiers in Forests and Global Change, 2020, 3, .	1.0	6
69	UV-B radiation and soil microbial communities. Nature, 2003, 423, 138-138.	13.7	5
70	Fate of carbon in upland grassland subjected to liming using in situ 13CO2 pulse-labelling. Plant and Soil, 2006, 287, 301-311.	1.8	5
71	Temporal patterns of litter production by vascular plants and its decomposition rate in cut-over peatlands. Wetlands, 2008, 28, 245-250.	0.7	5
72	Role of arbuscular mycorrhizal fungi in carbon and nutrient cycling in grassland. , 2006, , 129-150.		3

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73	A balanced polymorphism in biomass resource allocation controlled by phosphate in grasses screened through arsenate tolerance. Environmental and Experimental Botany, 2013, 96, 43-51.	2.0	3
74	Chapter 37 Mycorrhizal Fungal Networks as Plant Communication Systems. Mycology, 2017, , 539-548.	0.5	0