Matthias C Rillig

List of Publications by Year
in descending order

415	47,976	1606 105	2274 200
papers	citations	h-index	g-index

448	448	448	31795
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biochar effects on soil biota â€“ A review. Soil Biology and Biochemistry, 2011, 43, 1812-1836.	4.2	3,514
2	Microplastics as an emerging threat to terrestrial ecosystems. Global Change Biology, 2018, 24, 1405-1416.	4.2	1,303
3	Mycorrhizas and soil structure. New Phytologist, 2006, 171, 41-53.	3.5	1,300
4	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	4.2	1,038
5	Microplastic in Terrestrial Ecosystems and the Soil?. Environmental Science & Technology, 2012, 46, 6453-6454.	4.6	1,029
6	Microplastics Can Change Soil Properties and Affect Plant Performance. Environmental Science & Technology, 2019, 53, 6044-6052.	4.6	995
7	Mycorrhizal responses to biochar in soil â€“ concepts and mechanisms. Plant and Soil, 2007, 300, 9-20.	1.8	940
8	Impacts of Microplastics on the Soil Biophysical Environment. Environmental Science & Technology, 2018, 52, 9656-9665.	4.6	930
9	Where less may be more: how the rare biosphere pulls ecosystems strings. ISME Journal, 2017, 11, 853-862.	4.4	857
10	Arbuscular mycorrhizae, glomalin, and soil aggregation. Canadian Journal of Soil Science, 2004, 84, 355-363.	0.5	776
11	Choosing and using diversity indices: insights for ecological applications from the German Biodiversity Exploratories. Ecology and Evolution, 2014, 4, 3514-3524.	0.8	697
12	Rooting theories of plant community ecology in microbial interactions. Trends in Ecology and Evolution, 2010, 25, 468-478.	4.2	666
13	Soil aggregation and carbon sequestration are tightly correlated with the abundance of arbuscular mycorrhizal fungi: results from longâ€term field experiments. Ecology Letters, 2009, 12, 452-461.	3.0	600
14	Land use intensification alters ecosystem multifunctionality via loss of biodiversity and changes to functional composition. Ecology Letters, 2015, 18, 834-843.	3.0	578
15	Microplastic in terrestrial ecosystems. Science, 2020, 368, 1430-1431.	6.0	549
16	Microplastic transport in soil by earthworms. Scientific Reports, 2017, 7, 1362.	1.6	546
17	Biodiversity at multiple trophic levels is needed for ecosystem multifunctionality. Nature, 2016, 536, 456-459.	13.7	526
18	Global ecosystem thresholds driven by aridity. Science, 2020, 367, 787-790.	6.0	526

#	Article	IF	Citations
19	Soil microbes drive the classic plant diversityâ€“productivity pattern. Ecology, 2011, 92, 296-303.	1.5	517
20	Large contribution of arbuscular mycorrhizal fungi to soil carbon pools in tropical forest soils. Plant and Soil, 2001, 233, 167-177.	1.8	487
21	The concept and future prospects of soil health. Nature Reviews Earth & Environment, 2020, 1, 544-553.	12.2	486
22	Arbuscular mycorrhizae and terrestrial ecosystem processes. Ecology Letters, 2004, 7, 740-754.	3.0	481
23	Title is missing!. Plant and Soil, 2002, 238, 325-333.	1.8	463
24	Microplastic effects on plants. New Phytologist, 2019, 223, 1066-1070.	3.5	460
25	The role of multiple global change factors in driving soil functions and microbial biodiversity. Science, 2019, 366, 886-890.	6.0	437
26	Microplastic Incorporation into Soil in Agroecosystems. Frontiers in Plant Science, 2017, 8, 1805.	1.7	392
27	Mycorrhizal Symbioses and Plant Invasions. Annual Review of Ecology, Evolution, and Systematics, 2009, 40, 699-715.	3.8	388
28	Priming and memory of stress responses in organisms lacking a nervous system. Biological Reviews, 2016, 91, 1118-1133.	4.7	388
29	The fungal collaboration gradient dominates the root economics space in plants. Science Advances, 2020, 6, .	4.7	377
30	Characterization of glomalin as a hyphal wall component of arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 2005, 37, 101-106.	4.2	334
31	Plant root and mycorrhizal fungal traits for understanding soil aggregation. New Phytologist, 2015, 205, 1385-1388.	3.5	304
32	Biodiversity of arbuscular mycorrhizal fungi and ecosystem function. New Phytologist, 2018, 220, 1059-1075.	3.5	288
33	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.	1.2	283
34	Arbuscular mycorrhiza and soil nitrogen cycling. Soil Biology and Biochemistry, 2012, 46, 53-62.	4.2	280
35	Transport of microplastics by two collembolan species. Environmental Pollution, 2017, 225, 456-459.	3.7	279
36	Multiple factors influence the role of arbuscular mycorrhizal fungi in soil aggregationâ€”a meta-analysis. Plant and Soil, 2014, 374, 523-537.	1.8	270

#	Article	IF	Citations
37	Mycorrhizal fungal establishment in agricultural soils: factors determining inoculation success. New Phytologist, 2013, 197, 1104-1109.	3.5	266
38	Material derived from hydrothermal carbonization: Effects on plant growth and arbuscular mycorrhiza. Applied Soil Ecology, 2010, 45, 238-242.	2.1	262
39	Nutrient limitation of soil microbial processes in tropical forests. Ecological Monographs, 2018, 88, 4-21.	2.4	261
40	Soil biota contributions to soil aggregation. Nature Ecology and Evolution, 2017, 1, 1828-1835.	3.4	257
41	Microplastic Disguising As Soil Carbon Storage. Environmental Science & Technology, 2018, 52, 6079-6080.	4.6	249
42	Global distribution of earthworm diversity. Science, 2019, 366, 480-485.	6.0	248
43	Effects of Microplastic Fibers and Drought on Plant Communities. Environmental Science & Technology, 2020, 54, 6166-6173.	4.6	244
44	Microplastic Shape, Polymer Type, and Concentration Affect Soil Properties and Plant Biomass. Frontiers in Plant Science, 2021, 12, 616645.	1.7	244
45	Interannual variation in land-use intensity enhances grassland multidiversity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 308-313.	3.3	243
46	Glomalin, an arbuscular-mycorrhizal fungal soil protein, responds to land-use change. Plant and Soil, 2003, 253, 293-299.	1.8	241
47	Plant pathogen protection by arbuscular mycorrhizas: A role for fungal diversity?. Pedobiologia, 2010, 53, 197-201.	0.5	228
48	Role of proteins in soil carbon and nitrogen storage: controls on persistence. Biogeochemistry, 2007, 85, 25-44.	1.7	225
49	Microplastic effects on carbon cycling processes in soils. PLoS Biology, 2021, 19, e3001130.	2.6	220
50	Glomalin-related soil protein in a Mediterranean ecosystem affected by a copper smelter and its contribution to Cu and Zn sequestration. Science of the Total Environment, 2008, 406, 154-160.	3.9	218
51	Interchange of entire communities: microbial community coalescence. Trends in Ecology and Evolution, 2015, 30, 470-476.	4.2	210
52	Influences of non-herbaceous biochar on arbuscular mycorrhizal fungal abundances in roots and soils: Results from growth-chamber and field experiments. Applied Soil Ecology, 2010, 46, 450-456.	2.1	207
53	Glomalin production by an arbuscular mycorrhizal fungus: a mechanism of habitat modification?. Soil Biology and Biochemistry, 2002, 34, 1371-1374.	4.2	206
54	Soil aggregates as massively concurrent evolutionary incubators. ISME Journal, 2017, 11, 1943-1948.	4.4	206

#	Article	IF	Citations
55	Plant diversity represents the prevalent determinant of soil fungal community structure across temperate grasslands in northern China. Soil Biology and Biochemistry, 2017, 110, 12-21.	4.2	202
56	The invasive plant species Centaurea maculosa alters arbuscular mycorrhizal fungal communities in the field. Plant and Soil, 2006, 288, 81-90.	1.8	196
57	Arbuscular mycorrhizal contribution to copper, manganese and iron nutrient concentrations in crops â€“ A meta-analysis. Soil Biology and Biochemistry, 2015, 81, 147-158.	4.2	196
58	Mycelium of arbuscular mycorrhizal fungi increases soil water repellency and is sufficient to maintain water-stable soil aggregates. Soil Biology and Biochemistry, 2010, 42, 1189-1191.	4.2	195
59	Nitrogen and phosphorus additions impact arbuscular mycorrhizal abundance and molecular diversity in a tropical montane forest. Global Change Biology, 2014, 20, 3646-3659.	4.2	194
60	Arbuscular mycorrhizal influence on zinc nutrition in crop plants â€“ A meta-analysis. Soil Biology and Biochemistry, 2014, 69, 123-131.	4.2	193
61	Blind spots in global soil biodiversity and ecosystem function research. Nature Communications, 2020, 11, 3870.	5.8	192
62	Arbuscular mycorrhizal fungi increase grain yields: a metaâ€analysis. New Phytologist, 2019, 222, 543-555.	3.5	187
63	A mycorrhizal fungus grows on biochar and captures phosphorus from its surfaces. Soil Biology and Biochemistry, 2014, 77, 252-260.	4.2	184
64	Differential decomposition of arbuscular mycorrhizal fungal hyphae and glomalin. Soil Biology and Biochemistry, 2003, 35, 191-194.	4.2	182
65	Rise in carbon dioxide changes soil structure. Nature, 1999, 400, 628-628.	13.7	175
66	Artificial climate warming positively affects arbuscular mycorrhizae but decreases soil aggregate water stability in an annual grassland. Oikos, 2002, 97, 52-58.	1.2	174
67	Suppression of fungal and nematode plant pathogens through arbuscular mycorrhizal fungi. Biology Letters, 2012, 8, 214-217.	1.0	173
68	Abrupt rise in atmospheric CO2 overestimates community response in a model plantâ€“soil system. Nature, 2005, 433, 621-624.	13.7	171
69	Soil biota responses to long-term atmospheric CO 2 enrichment in two California annual grasslands. Oecologia, 1999, 119, 572-577.	0.9	167
70	Community assembly and coexistence in communities of arbuscular mycorrhizal fungi. ISME Journal, 2016, 10, 2341-2351.	4.4	167
71	Hydrochar and Biochar Effects on Germination of Spring Barley. Journal of Agronomy and Crop Science, 2013, 199, 360-373.	1.7	165
72	Why farmers should manage the arbuscular mycorrhizal symbiosis. New Phytologist, 2019, 222, 1171-1175.	3.5	164

#	Article	IF	Citations
73	The arbuscular mycorrhizal fungal protein glomalin is a putative homolog of heat shock protein 60. FEMS Microbiology Letters, 2006, 263, 93-101.	0.7	161
74	Disentangling the impact of AM fungi versus roots on soil structure and water transport. Plant and Soil, 2009, 314, 183-196.	1.8	159
75	Extinction risk of soil biota. Nature Communications, 2015, 6, 8862.	5.8	158
76	Land use influences arbuscular mycorrhizal fungal communities in the farmingâ€“pastoral ecotone of northern China. New Phytologist, 2014, 204, 968-978.	3.5	157
77	Biochar increases arbuscular mycorrhizal plant growth enhancement and ameliorates salinity stress. Applied Soil Ecology, 2015, 96, 114-121.	2.1	154
78	Designing belowground field experiments with the help of semi-variance and power analyses. Applied Soil Ecology, 1999, 12, 227-238.	2.1	152
79	Tracking, targeting, and conserving soil biodiversity. Science, 2021, 371, 239-241.	6.0	151
80	Glomalin-related soil protein: Assessment of current detection and quantification tools. Soil Biology and Biochemistry, 2006, 38, 2205-2211.	4.2	150
81	Fertilization affects severity of disease caused by fungal plant pathogens. Plant Pathology, 2013, 62, 961-969.	1.2	150
82	Mycorrhizas in the Central European flora: relationships with plant life history traits and ecology. Ecology, 2013, 94, 1389-1399.	1.5	150
83	Forces that structure plant communities: quantifying the importance of the mycorrhizal symbiosis. New Phytologist, 2011, 189, 366-370.	3.5	149
84	Untangling the biological contributions to soil stability in semiarid shrublands. Ecological Applications, 2009, 19, 110-122.	1.8	148
85	Soil plastispheres as hotspots of antibiotic resistance genes and potential pathogens. ISME Journal, 2022, 16, 521-532.	4.4	148
86	Do arbuscular mycorrhizal fungi affect the allometric partition of host plant biomass to shoots and roots? A meta-analysis of studies from 1990 to 2010. Mycorrhiza, 2012, 22, 227-235.	1.3	147
87	Microplastic and soil protists: A call for research. Environmental Pollution, 2018, 241, 1128-1131.	3.7	147
88	How Soil Biota Drive Ecosystem Stability. Trends in Plant Science, 2018, 23, 1057-1067.	4.3	145
89	Arbuscular mycorrhizal fungi reduce decomposition of woody plant litter while increasing soil aggregation. Soil Biology and Biochemistry, 2015, 81, 323-328.	4.2	144
90	Microplastics Increase Soil pH and Decrease Microbial Activities as a Function of Microplastic Shape, Polymer Type, and Exposure Time. Frontiers in Environmental Science, 2021, 9, .	1.5	143

#	Article	IF	Citations
91	The effects of arbuscular mycorrhizas on soil aggregation depend on the interaction between plant and fungal species. New Phytologist, 2004, 164, 365-373.	3.5	142
92	Below-Ground Microbial and Microfaunal Responses to Artemisia tridentata Grown Under Elevated Atmospheric Co 2. Functional Ecology, 1996, 10, 527.	1.7	141
93	Fungal superhighways: do common mycorrhizal networks enhance below ground communication?. Trends in Plant Science, 2012, 17, 633-637.	4.3	140
94	The arbuscular mycorrhizal fungal protein glomalin: Limitations, progress, and a new hypothesis for its function. Pedobiologia, 2007, 51, 123-130.	0.5	133
95	Contributions of biotic and abiotic factors to soil aggregation across a land use gradient. Soil Biology and Biochemistry, 2010, 42, 2316-2324.	4.2	130
96	Effects of hydrochar application on the dynamics of soluble nitrogen in soils and on plant availability. Journal of Plant Nutrition and Soil Science, 2014, 177, 48-58.	1.1	125
97	Effects of microplastics and drought on soil ecosystem functions and multifunctionality. Journal of Applied Ecology, 2021, 58, 988-996.	1.9	124
98	Choice of methods for soil microbial community analysis: PLFA maximizes power compared to CLPP and PCR-based approaches. Pedobiologia, 2006, 50, 275-280.	0.5	123
99	Does herbivory really suppress mycorrhiza? A metaâ€analysis. Journal of Ecology, 2010, 98, 745-753.	1.9	123
100	The Fungal Fast Lane: Common Mycorrhizal Networks Extend Bioactive Zones of Allelochemicals in Soils. PLoS ONE, 2011, 6, e27195.	1.1	123
101	Crop cover is more important than rotational diversity for soil multifunctionality and cereal yields in European cropping systems. Nature Food, 2021, 2, 28-37.	6.2	120
102	Branching out: Towards a trait-based understanding of fungal ecology. Fungal Biology Reviews, 2015, 29, 34-41.	1.9	118
103	Effects of Different Microplastics on Nematodes in the Soil Environment: Tracking the Extractable Additives Using an Ecotoxicological Approach. Environmental Science & Technology, 2020, 54, 13868-13878.	4.6	118
104	Locally rare species influence grassland ecosystem multifunctionality. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150269.	1.8	117
105	Neighboring plant influences on arbuscular mycorrhizal fungal community composition as assessed by T-RFLP analysis. Plant and Soil, 2005, 271, 83-90.	1.8	116
106	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.	1.8	116
107	Impacts of domestication on the arbuscular mycorrhizal symbiosis of 27 crop species. New Phytologist, 2018, 218, 322-334.	3.5	116
108	Evolutionary implications of microplastics for soil biota. Environmental Chemistry, 2019, 16, 3.	0.7	114

#	ARTICLE	IF	CITATIONS
109	Tropical Andean Forests Are Highly Susceptible to Nutrient Inputsâ€”Rapid Effects of Experimental N and P Addition to an Ecuadorian Montane Forest. PLoS ONE, 2012, 7, e47128.	1.1	111
110	Landâ€use intensity and host plant identity interactively shape communities of arbuscular mycorrhizal fungi in roots of grassland plants. New Phytologist, 2015, 205, 1577-1586.	3.5	111
111	Divergent consequences of hydrochar in the plantâ€“soil system: Arbuscular mycorrhiza, nodulation, plant growth and soil aggregation effects. Applied Soil Ecology, 2012, 59, 68-72.	2.1	107
112	Basic Principles of Temporal Dynamics. Trends in Ecology and Evolution, 2019, 34, 723-733.	4.2	107
113	Microsite differences in fungal hyphal length, glomalin, and soil aggregate stability in semiarid Mediterranean steppes. Soil Biology and Biochemistry, 2003, 35, 1257-1260.	4.2	105
114	Evidence for functional divergence in arbuscular mycorrhizal fungi from contrasting climatic origins. New Phytologist, 2011, 189, 507-514.	3.5	104
115	Highâ€resolution community profiling of arbuscular mycorrhizal fungi. New Phytologist, 2016, 212, 780-791.	3.5	104
116	A connection between fungal hydrophobins and soil water repellency?. Pedobiologia, 2005, 49, 395-399.	0.5	101
117	Towards an Integrated Mycorrhizal Technology: Harnessing Mycorrhiza for Sustainable Intensification in Agriculture. Frontiers in Plant Science, 2016, 7, 1625.	1.7	101
118	Foliar elemental composition of <scp>E</scp>uropean forest tree species associated with evolutionary traits and present environmental and competitive conditions. Global Ecology and Biogeography, 2015, 24, 240-255.	2.7	100
119	Foliar and soil concentrations and stoichiometry of nitrogen and phosphorous across <scp>E</scp>uropean <i><scp>P</scp>inus sylvestris</i> forests: relationships with climate, <scp>N</scp> deposition and tree growth. Functional Ecology, 2016, 30, 676-689.	1.7	99
120	Towards an integrative understanding of soil biodiversity. Biological Reviews, 2020, 95, 350-364.	4.7	97
121	Ecosystem service and biodiversity trade-offs in two woody successions. Journal of Applied Ecology, 2011, 48, 926-934.	1.9	96
122	Small-scale spatial heterogeneity of arbuscular mycorrhizal fungal abundance and community composition in a wetland plant community. Mycorrhiza, 2007, 17, 175-183.	1.3	92
123	Statistically reinforced machine learning for nonlinear patterns and variable interactions. Ecosphere, 2017, 8, e01976.	1.0	92
124	Application of the microbial community coalescence concept to riverine networks. Biological Reviews, 2018, 93, 1832-1845.	4.7	92
125	Visualizing the dynamics of soil aggregation as affected by arbuscular mycorrhizal fungi. ISME Journal, 2019, 13, 1639-1646.	4.4	91
126	Spatial characterization of arbuscular mycorrhizal fungal molecular diversity at the submetre scale in a temperate grassland. FEMS Microbiology Ecology, 2008, 64, 260-270.	1.3	90

#	Article	IF	Citations
127	Global root traits (GRooT) database. Global Ecology and Biogeography, 2021, 30, 25-37.	2.7	90
128	Elevated carbon dioxide and irrigation effects on water stable aggregates in a Sorghum field: a possible role for arbuscular mycorrhizal fungi. Global Change Biology, 2001, 7, 333-337.	4.2	89
129	The Influence of Different Stresses on Glomalin Levels in an Arbuscular Mycorrhizal Fungusâ€"Salinity Increases Glomalin Content. PLoS ONE, 2011, 6, e28426.	1.1	89
130	Abiotic and Biotic Factors Influencing the Effect of Microplastic on Soil Aggregation. Soil Systems, 2019, 3, 21.	1.0	89
131	What is the role of arbuscular mycorrhizal fungi in plant-to-ecosystem responses to Elevated atmospheric CO 2 ?. Mycorrhiza, 1999, 9, 1-8.	1.3	88
132	Arbuscular mycorrhizal fungal communities are phylogenetically clustered at small scales. ISME Journal, 2014, 8, 2231-2242.	4.4	88
133	Soil fungalâ€arthropod responses to Populus tremuloides grown under enriched atmospheric CO 2 under field conditions. Global Change Biology, 1997, 3, 473-478.	4.2	85
134	Deciphering the relative contributions of multiple functions within plantâ€"microbe symbioses. Ecology, 2010, 91, 1591-1597.	1.5	85
135	Interspecific differences in the response of arbuscular mycorrhizal fungi to Artemisia tridentata grown under elevated atmospheric CO2. New Phytologist, 1998, 138, 599-605.	3.5	84
136	Seasonality of arbuscular mycorrhizal hyphae and glomalin in a western Montana grassland. Plant and Soil, 2003, 257, 71-83.	1.8	84
137	Do arbuscular mycorrhizal fungi stabilize litterâ€derived carbon in soil?. Journal of Ecology, 2016, 104, 261-269.	1.9	84
138	Functional Traits and Spatio-Temporal Structure of a Major Group of Soil Protists (Rhizaria:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td	1.5	82
139	Arbuscular mycorrhizal fungi pre-inoculant identity determines community composition in roots. Soil Biology and Biochemistry, 2009, 41, 1173-1179.	4.2	81
140	Understanding mechanisms of soil biota involvement in soil aggregation: A way forward with saprobic fungi?. Soil Biology and Biochemistry, 2015, 88, 298-302.	4.2	81
141	Protein accumulation and distribution in floodplain soils and river foam. Ecology Letters, 2004, 7, 829-836.	3.0	80
142	Linking the community structure of arbuscular mycorrhizal fungi and plants: a story of interdependence?. ISME Journal, 2017, 11, 1400-1411.	4.4	78
143	Mycorrhizal status helps explain invasion success of alien plant species. Ecology, 2017, 98, 92-102.	1.5	77
144	Fungal Traits Important for Soil Aggregation. Frontiers in Microbiology, 2019, 10, 2904.	1.5	77

#	Article	IF	Citations
145	Evolutionary criteria outperform operational approaches in producing ecologically relevant fungal species inventories. Molecular Ecology, 2011, 20, 655-666.	2.0	76
146	Creating novel urban grasslands by reintroducing native species in wasteland vegetation. Biological Conservation, 2013, 159, 119-126.	1.9	76
147	Functional role of microarthropods in soil aggregation. Pedobiologia, 2015, 58, 59-63.	0.5	76
148	The Global Plastic Toxicity Debt. Environmental Science & Technology, 2021, 55, 2717-2719.	4.6	72
149	Phylogeny of arbuscular mycorrhizal fungi predicts community composition of symbiosis-associated bacteria. FEMS Microbiology Ecology, 2006, 57, 389-395.	1.3	71
150	Root traits are more than analogues of leaf traits: the case for diaspore mass. New Phytologist, 2017, 216, 1130-1139.	3.5	71
151	Contrasting latitudinal diversity and co-occurrence patterns of soil fungi and plants in forest ecosystems. Soil Biology and Biochemistry, 2019, 131, 100-110.	4.2	71
152	Seventeen years of carbon dioxide enrichment of sour orange trees: final results. Global Change Biology, 2007, 13, 2171-2183.	4.2	69
153	Ecological understanding of root-infecting fungi using trait-based approaches. Trends in Plant Science, 2014, 19, 432-438.	4.3	68
154	Interplay of soil water repellency, soil aggregation and organic carbon. A meta-analysis. Geoderma, 2016, 283, 39-47.	2.3	68
155	Microplastic Research Should Embrace the Complexity of Secondary Particles. Environmental Science & Technology, 2020, 54, 7751-7753.	4.6	68
156	Hydrochar amendment promotes microbial immobilization of mineral nitrogen. Journal of Plant Nutrition and Soil Science, 2014, 177, 59-67.	1.1	67
157	Longâ€term effects of soil nutrient deficiency on arbuscular mycorrhizal communities. Functional Ecology, 2012, 26, 532-540.	1.7	66
158	Plant community, geographic distance and abiotic factors play different roles in predicting AMF biogeography at the regional scale in northern China. Environmental Microbiology Reports, 2016, 8, 1048-1057.	1.0	66
159	Historical biome distribution and recent human disturbance shape the diversity of arbuscular mycorrhizal fungi. New Phytologist, 2017, 216, 227-238.	3.5	66
160	Losses of glomalin-related soil protein under prolonged arable cropping: A chronosequence study in sandy soils of the South African Highveld. Soil Biology and Biochemistry, 2007, 39, 445-453.	4.2	65
161	Compositional divergence and convergence in arbuscular mycorrhizal fungal communities. Ecology, 2012, 93, 1115-1124.	1.5	65
162	Root trait responses to drought are more heterogeneous than leaf trait responses. Functional Ecology, 2020, 34, 2224-2235.	1.7	65

#	Article	IF	Citations
163	Effects of Microplastic Fibers on Soil Aggregation and Enzyme Activities Are Organic Matter Dependent. Frontiers in Environmental Science, 2021, 9, .	1.5	65
164	Influence of commercial inoculation with Glomus intraradices on the structure and functioning of an AM fungal community from an agricultural site. Plant and Soil, 2009, 317, 257-266.	1.8	64
165	Do closely related plants host similar arbuscular mycorrhizal fungal communities? A meta-analysis. Plant and Soil, 2014, 377, 395-406.	1.8	64
166	Priorities for research in soil ecology. Pedobiologia, 2017, 63, 1-7.	0.5	64
167	Plant species-specific changes in root-inhabiting fungi in a California annual grassland: responses to elevated CO 2 and nutrients. Oecologia, 1998, 113, 252-259.	0.9	63
168	Relationship between communities and processes; new insights from a field study of a contaminated ecosystem. Ecology Letters, 2005, 8, 1201-1210.	3.0	63
169	Subsoil Arbuscular Mycorrhizal Fungi for Sustainability and Climate-Smart Agriculture: A Solution Right Under Our Feet?. Frontiers in Microbiology, 2019, 10, 744.	1.5	63
170	Determinants of rootâ€associated fungal communities within <scp>A</scp>steraceae in a semiâ€arid grassland. Journal of Ecology, 2014, 102, 425-436.	1.9	62
171	Movementâ€mediated community assembly and coexistence. Biological Reviews, 2020, 95, 1073-1096.	4.7	62
172	Global Change and Mycorrhizal Fungi. Ecological Studies, 2002, , 135-160.	0.4	61
173	Microbiota accompanying different arbuscular mycorrhizal fungal isolates influence soil aggregation. Pedobiologia, 2005, 49, 251-259.	0.5	61
174	Soil microbes and community coalescence. Pedobiologia, 2016, 59, 37-40.	0.5	61
175	Opposing effects of nitrogen versus phosphorus additions on mycorrhizal fungal abundance along an elevational gradient in tropical montane forests. Soil Biology and Biochemistry, 2016, 94, 37-47.	4.2	61
176	Arbuscular mycorrhizal fungi enhance spotted knapweed growth across a riparian chronosequence. Biological Invasions, 2010, 12, 1481-1490.	1.2	60
177	Biochars reduce infection rates of the root-lesion nematode Pratylenchus penetrans and associated biomass loss in carrot. Soil Biology and Biochemistry, 2016, 95, 11-18.	4.2	60
178	Increasing Temperature and Microplastic Fibers Jointly Influence Soil Aggregation by Saprobic Fungi. Frontiers in Microbiology, 2019, 10, 2018.	1.5	60
179	Arbuscular mycorrhizae respond to elevated atmospheric CO2 after long-term exposure: evidence from a CO2 spring in New Zealand supports the resource balance model. Ecology Letters, 2000, 3, 475-478.	3.0	60
180	Soil biota effects on soil structure: Interactions between arbuscular mycorrhizal fungal mycelium and collembola. Soil Biology and Biochemistry, 2012, 50, 33-39.	4.2	59

#	Article	IF	Citations
181	Global Plastic Pollution Observation System to Aid Policy. Environmental Science & Technology, 2021, 55, 7770-7775.	4.6	59
182	Shaping Up: Toward Considering the Shape and Form of Pollutants. Environmental Science & Technology, 2019, 53, 7925-7926.	4.6	58
183	Inhibition of colonization by a native arbuscular mycorrhizal fungal community via Populus trichocarpa litter, litter extract, and soluble phenolic compounds. Soil Biology and Biochemistry, 2008, 40, 709-717.	4.2	57
184	Arbuscular mycorrhizal fungal hyphae reduce soil erosion by surface water flow in a greenhouse experiment. Applied Soil Ecology, 2016, 99, 137-140.	2.1	57
185	The Influence of Land Use Intensity on the Plant-Associated Microbiome of Dactylis glomerata L.. Frontiers in Plant Science, 2017, 8, 930.	1.7	57
186	Arbuscular mycorrhizal fungi and collembola non-additively increase soilÂaggregation. Soil Biology and Biochemistry, 2012, 47, 93-99.	4.2	56
187	Seasonal Dynamics of Shallow-Hyporheic-Zone Microbial Community Structure along a Heavy-Metal Contamination Gradient. Applied and Environmental Microbiology, 2004, 70, 2323-2331.	1.4	55
188	Parasitism of arbuscular mycorrhizal fungi: reviewing the evidence. FEMS Microbiology Letters, 2008, 279, 8-14.	0.7	55
189	Arbuscular mycorrhizal fungal abundance in the Mojave Desert: Seasonal dynamics and impacts of elevated CO2. Journal of Arid Environments, 2009, 73, 834-843.	1.2	55
190	Arbuscular mycorrhizal fungi â€" shortâ€term liability but longâ€term benefits for soil carbon storage?. New Phytologist, 2013, 197, 366-368.	3.5	55
191	Towards an Integrative, Eco-Evolutionary Understanding of Ecological Novelty: Studying and Communicating Interlinked Effects of Global Change. BioScience, 2019, 69, 888-899.	2.2	55
192	Plant diversity maintains multiple soil functions in future environments. ELife, 2018, 7, .	2.8	54
193	Agricultural management and pesticide use reduce the functioning of beneficial plant symbionts. Nature Ecology and Evolution, 2022, 6, 1145-1154.	3.4	54
194	Evaluation of LSU rRNA-gene PCR primers for analysis of arbuscular mycorrhizal fungal communities via terminal restriction fragment length polymorphism analysis. Journal of Microbiological Methods, 2007, 70, 200-204.	0.7	53
195	Microplastics have shape- and polymer-dependent effects on soil aggregation and organic matter loss â€" an experimental and meta-analytical approach. Microplastics and Nanoplastics, 2021, 1, .	4.1	53
196	Improving soil protein extraction for metaproteome analysis and glomalinâ€related soil protein detection. Proteomics, 2009, 9, 4970-4973.	1.3	51
197	Hyporheic Microbial Community Development Is a Sensitive Indicator of Metal Contamination. Environmental Science & Technology, 2009, 43, 6158-6163.	4.6	51
198	Growing Research Networks on Mycorrhizae for Mutual Benefits. Trends in Plant Science, 2018, 23, 975-984.	4.3	51

#	Article	IF	Citations
199	Microplastic fibers affect dynamics and intensity of CO2 and N2O fluxes from soil differently. Microplastics and Nanoplastics, 2021, 1, .	4.1	51
200	Microbial stress priming: a metaâ€analysis. Environmental Microbiology, 2016, 18, 1277-1288.	1.8	49
201	Microplastic fiber and drought effects on plants and soil are only slightly modified by arbuscular mycorrhizal fungi. Soil Ecology Letters, 2022, 4, 32-44.	2.4	49
202	Increased levels of airborne fungal spores in response to <i>Populus tremuloides</i> grown under elevated atmospheric CO₂. Canadian Journal of Botany, 1997, 75, 1670-1673.	1.2	47
203	Title is missing!. Plant and Soil, 2003, 254, 383-391.	1.8	47
204	Endogeic earthworms differentially influence bacterial communities associated with different soil aggregate size fractions. Soil Biology and Biochemistry, 2006, 38, 1608-1614.	4.2	47
205	Extraradical arbuscular mycorrhizal fungal hyphae in an organic tropical montane forest soil. Soil Biology and Biochemistry, 2013, 64, 96-102.	4.2	47
206	Temperature priming and memory in soil filamentous fungi. Fungal Ecology, 2016, 21, 10-15.	0.7	47
207	The interplay between soil structure, roots, and microbiota as a determinant of plantâ€“soil feedback. Ecology and Evolution, 2016, 6, 7633-7644.	0.8	46
208	Structure and Seasonal Dynamics of Hyporheic Zone Microbial Communities in Free-Stone Rivers of the Western United States. Microbial Ecology, 2003, 46, 200-215.	1.4	45
209	On the application of network theory to arbuscular mycorrhizal fungiâ€“plant interactions: the importance of basic assumptions. New Phytologist, 2012, 194, 891-894.	3.5	45
210	Independent effects of arbuscular mycorrhiza and earthworms on plant diversity and newcomer plant establishment. Journal of Vegetation Science, 2011, 22, 1021-1030.	1.1	44
211	Soil Biodiversity Effects from Field to Fork. Trends in Plant Science, 2018, 23, 17-24.	4.3	44
212	Microbial carbon-substrate utilization in the rhizosphere of Gutierrezia sarothrae grown in elevated atmospheric carbon dioxide. Soil Biology and Biochemistry, 1997, 29, 1387-1394.	4.2	43
213	Arbuscular mycorrhizal fungal hyphae enhance transport of the allelochemical juglone in the field. Soil Biology and Biochemistry, 2014, 78, 76-82.	4.2	43
214	Bridging reproductive and microbial ecology: a case study in arbuscular mycorrhizal fungi. ISME Journal, 2019, 13, 873-884.	4.4	43
215	Plant and soil biodiversity have nonâ€substitutable stabilising effects on biomass production. Ecology Letters, 2021, 24, 1582-1593.	3.0	43
216	Towards a systemic metabolic signature of the arbuscular mycorrhizal interaction. Oecologia, 2011, 167, 913-924.	0.9	42

#	Article	IF	Citations
217	Disturbance, neutral theory, and patterns of beta diversity in soil communities. Ecology and Evolution, 2014, 4, 4766-4774.	0.8	42
218	Towards the development of general rules describing landscape heterogeneityâ€"multifunctionality relationships. Journal of Applied Ecology, 2019, 56, 168-179.	1.9	42
219	Structure and seasonal dynamics of hyporheic zone microbial communities in free-stone rivers of the estern United States. Microbial Ecology, 2003, 46, 200-215.	1.4	41
220	Dynamics of mycorrhizae during development of riparian forests along an unregulated river. Ecography, 2008, 31, 245-253.	2.1	41
221	Multiscale patterns of arbuscular mycorrhizal fungal abundance and diversity in semiarid shrublands. Fungal Ecology, 2014, 12, 32-43.	0.7	41
222	Soil fungal mycelia have unexpectedly flexible stoichiometric C:N and C:P ratios. Ecology Letters, 2021, 24, 208-218.	3.0	41
223	Potential Effects of Microplastic on Arbuscular Mycorrhizal Fungi. Frontiers in Plant Science, 2021, 12, 626709.	1.7	41
224	Polyester microplastic fibers in soil increase nitrogen loss via leaching and decrease plant biomass production and N uptake. Environmental Research Letters, 2022, 17, 054012.	2.2	41
225	Fungal root colonization responses in natural grasslands after longâ€term exposure to elevated atmospheric CO2. Global Change Biology, 1999, 5, 577-585.	4.2	40
226	Interactive effects of root endophytes and arbuscular mycorrhizal fungi on an experimental plant community. Oecologia, 2014, 174, 263-270.	0.9	40
227	Plastic and plants. Nature Sustainability, 2020, 3, 887-888.	11.5	40
228	Arbuscular mycorrhizal fungi on developing islands within a dynamic river floodplain: an investigation across successional gradients and soil depth. Aquatic Sciences, 2011, 73, 35-42.	0.6	39
229	Modelling the environmental and soil factors that shape the niches of two common arbuscular mycorrhizal fungal families. Plant and Soil, 2013, 368, 507-518.	1.8	39
230	Microbial Community Coalescence for Microbiome Engineering. Frontiers in Microbiology, 2016, 7, 1967.	1.5	39
231	Intraradical protein and glomalin as a tool for quantifying arbuscular mycorrhizal root colonization. Pedobiologia, 2008, 52, 41-50.	0.5	38
232	Subsoil arbuscular mycorrhizal fungal communities in arable soil differ from those in topsoil. Soil Biology and Biochemistry, 2018, 117, 83-86.	4.2	38
233	Land use and host neighbor identity effects on arbuscular mycorrhizal fungal community composition in focal plant rhizosphere. Biodiversity and Conservation, 2013, 22, 2193-2205.	1.2	37
234	Ectomycorrhizal fungi in association with Pinus sylvestris seedlings promote soil aggregation and soil water repellency. Soil Biology and Biochemistry, 2014, 78, 326-331.	4.2	37

#	Article	IF	Citations
235	Mycorrhizal fungi associated with high soil N:P ratios are more likely to be lost upon conversion from grasslands to arable agriculture. Soil Biology and Biochemistry, 2015, 86, 1-4.	4.2	37
236	Classifying human influences on terrestrial ecosystems. Global Change Biology, 2021, 27, 2273-2278.	4.2	37
237	Tire wear particles: An emerging threat to soil health. Critical Reviews in Environmental Science and Technology, 2023, 53, 239-257.	6.6	37
238	Testing for allelopathic effects in plant competition: does activated carbon disrupt plant symbioses?. Plant Ecology, 2010, 211, 19-26.	0.7	36
239	Dissemination biases in ecology: effect sizes matter more than quality. Oikos, 2012, 121, 228-235.	1.2	36
240	Distinguishing variability from uncertainty. Nature Climate Change, 2014, 4, 153-153.	8.1	36
241	Soil hyphaâ€mediated movement of allelochemicals: arbuscular mycorrhizae extend the bioactive zone of juglone. Functional Ecology, 2014, 28, 1020-1029.	1.7	36
242	Intransitive competition is common across five major taxonomic groups and is driven by productivity, competitive rank and functional traits. Journal of Ecology, 2018, 106, 852-864.	1.9	36
243	Negative biotic soil-effects enhance biodiversity by restricting potentially dominant plant species in grasslands. Perspectives in Plant Ecology, Evolution and Systematics, 2015, 17, 227-235.	1.1	35
244	Community primingâ€"effects of sequential stressors on microbial assemblages. FEMS Microbiology Ecology, 2015, 91, .	1.3	35
245	Novel Set-Up for Low-Disturbance Sampling of Volatile and Non-volatile Compounds from Plant Roots. Journal of Chemical Ecology, 2015, 41, 253-266.	0.9	35
246	Environmental filtering vs. resource-based niche partitioning in diverse soil animal assemblages. Soil Biology and Biochemistry, 2015, 85, 145-152.	4.2	35
247	Arbuscular Mycorrhizal Fungi Alter the Community Structure of Ammonia Oxidizers at High Fertility via Competition for Soil NH4+. Microbial Ecology, 2019, 78, 147-158.	1.4	35
248	Community response of arbuscular mycorrhizal fungi to extreme drought in a coldâ€temperate grassland. New Phytologist, 2022, 234, 2003-2017.	3.5	35
249	Drought induces shifts in soil fungal communities that can be linked to root traits across 24 plant species. New Phytologist, 2021, 232, 1917-1929.	3.5	35
250	Indigenous Arbuscular Mycorrhizal Fungal Assemblages Protect Grassland Host Plants from Pathogens. PLoS ONE, 2011, 6, e27381.	1.1	35
251	Plant herbivore protection by arbuscular mycorrhizas: a role for fungal diversity?. New Phytologist, 2022, 233, 1022-1031.	3.5	35
252	Immuno-cytolocalization of glomalin in the mycelium of the arbuscular mycorrhizal fungus Glomus intraradices. Soil Biology and Biochemistry, 2008, 40, 1000-1003.	4.2	34

#	Article	IF	Citations
253	Initial and subsequent effects of hydrochar amendment on germination and nitrogen uptake of spring barley. Journal of Plant Nutrition and Soil Science, 2014, 177, 68-74.	1.1	34
254	Mycorrhizas and Soil Aggregation. , 2017, , 241-262.		34
255	Succession of Arbuscular Mycorrhizal Fungi: Patterns, Causes, and Considerations for Organic Agriculture. Advances in Agronomy, 2008, 97, 111-130.	2.4	33
256	Application of Phi29 DNA polymerase mediated whole genome amplification on single spores of arbuscular mycorrhizal (AM) fungi. FEMS Microbiology Letters, 2005, 242, 65-71.	0.7	32
257	Largeâ€scale drivers of relationships between soil microbial properties and organic carbon across Europe. Global Ecology and Biogeography, 2021, 30, 2070-2083.	2.7	32
258	Exploring continentalâ€scale stand health â€“ <scp>N</scp>Â:Â<scp>P</scp> ratio relationships for <scp>E</scp>uropean forests. New Phytologist, 2014, 202, 422-430.	3.5	30
259	Effect of different root endophytic fungi on plant community structure in experimental microcosms. Ecology and Evolution, 2016, 6, 8149-8158.	0.8	30
260	Distribution patterns of arbuscular mycorrhizal and non-mycorrhizal plant species in Germany. Perspectives in Plant Ecology, Evolution and Systematics, 2016, 21, 78-88.	1.1	30
261	Weak conspecific feedbacks and exotic dominance in a species-rich savannah. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2939-2945.	1.2	29
262	Changes of AM Fungal Abundance along Environmental Gradients in the Arid and Semi-Arid Grasslands of Northern China. PLoS ONE, 2013, 8, e57593.	1.1	29
263	Global data on earthworm abundance, biomass, diversity and corresponding environmental properties. Scientific Data, 2021, 8, 136.	2.4	29
264	Arbuscular mycorrhizae of Gutierrezia sarothrae and elevated carbon dioxide: evidence for shifts in C allocation to and within the mycobiont. Soil Biology and Biochemistry, 1998, 30, 2001-2008.	4.2	28
265	Suitability of mycorrhiza-defective mutant/wildtype plant pairs (Solanum lycopersicum L. cv) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.8	28
266	Soil biodiversity enhances the persistence of legumes under climate change. New Phytologist, 2021, 229, 2945-2956.	3.5	28
267	Tire abrasion particles negatively affect plant growth even at low concentrations and alter soil biogeochemical cycling. Soil Ecology Letters, 2022, 4, 409-415.	2.4	28
268	Above- and belowground linkages of a nitrogen and phosphorus co-limited tropical mountain pasture system â€“ responses to nutrient enrichment. Plant and Soil, 2015, 391, 333-352.	1.8	27
269	Sounds of Soil: A New World of Interactions under Our Feet?. Soil Systems, 2019, 3, 45.	1.0	27
270	Moderate phosphorus additions consistently affect community composition of arbuscular mycorrhizal fungi in tropical montane forests in southern Ecuador. New Phytologist, 2020, 227, 1505-1518.	3.5	27

#	Article	IF	Citations
271	Determining Rates of Change and Evaluating Group-Level Resiliency Differences in Hyporheic Microbial Communities in Response to Fluvial Heavy-Metal Deposition. Applied and Environmental Microbiology, 2004, 70, 4756-4765.	1.4	26
272	Responsiveness of plants to mycorrhiza regulates coexistence. Journal of Ecology, 2018, 106, 1864-1875.	1.9	26
273	Rate of environmental change across scales in ecology. Biological Reviews, 2020, 95, 1798-1811.	4.7	26
274	Arbuscular mycorrhizal percent root infection and infection intensity of <i>Bromus hordeaceus</i> grown in elevated atmospheric CO₂. Mycologia, 1998, 90, 199-205.	0.8	25
275	Just a matter of time: Fungi and roots significantly and rapidly aggregate soil over four decades along the Tagliamento River, NE Italy. Soil Biology and Biochemistry, 2014, 75, 133-142.	4.2	25
276	Microbial Ecology: Community Coalescence Stirs Things Up. Current Biology, 2017, 27, R1280-R1282.	1.8	25
277	Glomalin content of forest soils in relation to fire frequency and landscape position. Mycorrhiza, 2003, 13, 205-210.	1.3	24
278	Influence of spotted knapweed (Centaurea maculosa) management treatments on arbuscular mycorrhizae and soil aggregation. Weed Science, 2004, 52, 172-177.	0.8	24
279	How can we bring together empiricists and modellers in functional biodiversity research?. Basic and Applied Ecology, 2013, 14, 93-101.	1.2	24
280	Toward a global platform for linking soil biodiversity data. Frontiers in Ecology and Evolution, 0, 3, .	1.1	24
281	Facilitation between woody and herbaceous plants that associate with arbuscular mycorrhizal fungi in temperate European forests. Ecology and Evolution, 2017, 7, 1181-1189.	0.8	24
282	Mine waste contamination limits soil respiration rates: a case study using quantile regression. Soil Biology and Biochemistry, 2005, 37, 1177-1183.	4.2	23
283	Evaluation of loop-mediated isothermal amplification (LAMP) to rapidly detect arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 2008, 40, 540-543.	4.2	23
284	Nitrogen Type and Availability Drive Mycorrhizal Effects on Wheat Performance, Nitrogen Uptake and Recovery, and Production Sustainability. Frontiers in Plant Science, 2020, 11, 760.	1.7	23
285	Are power laws that estimate fractal dimension a good descriptor of soil structure and its link to soil biological properties?. Soil Biology and Biochemistry, 2011, 43, 359-366.	4.2	22
286	Predictors of Arbuscular Mycorrhizal Fungal Communities in the Brazilian Tropical Dry Forest. Microbial Ecology, 2018, 75, 447-458.	1.4	22
287	Tradeoffs in hyphal traits determine mycelium architecture in saprobic fungi. Scientific Reports, 2019, 9, 14152.	1.6	22
288	Arbuscular mycorrhiza contributes to the control of phosphorus loss in paddy fields. Plant and Soil, 2020, 447, 623-636.	1.8	22

#	Article	IF	Citations
289	Minimal direct contribution of arbuscular mycorrhizal fungi to DOC leaching in grassland through losses of glomalin-related soil protein. Soil Biology and Biochemistry, 2006, 38, 2967-2970.	4.2	21
290	Plant community assembly at small scales: Spatial vs. environmental factors in a European grassland. Acta Oecologica, 2015, 63, 56-62.	0.5	21
291	Distinct communities of Cercozoa at different soil depths in a temperate agricultural field. FEMS Microbiology Ecology, 2019, 95, .	1.3	21
292	Linking Soil Biodiversity and Human Health: Do Arbuscular Mycorrhizal Fungi Contribute to Food Nutrition?. , 2012, , 153-172.		21
293	Polyester microplastic fibers affect soil physical properties and erosion as a function of soil type. Soil, 2022, 8, 421-435.	2.2	21
294	Earthworms can modify effects of hydrochar on growth of Plantago lanceolata and performance of arbuscular mycorrhizal fungi. Pedobiologia, 2013, 56, 219-224.	0.5	20
295	Relative Importance of Individual Climatic Drivers Shaping Arbuscular Mycorrhizal Fungal Communities. Microbial Ecology, 2016, 72, 418-427.	1.4	20
296	Suitability of genomic DNA synthesized by strand displacement amplification (SDA) for AFLP analysis: genotyping single spores of arbuscular mycorrhizal (AM) fungi. Journal of Microbiological Methods, 2005, 63, 157-164.	0.7	19
297	Heterogeneity in mycorrhizal inoculum potential of flood-deposited sediments. Aquatic Sciences, 2009, 71, 331-337.	0.6	19
298	Additive effects of functionally dissimilar above- and belowground organisms on a grassland plant community. Journal of Plant Ecology, 2011, 4, 221-227.	1.2	19
299	Succession of arbuscular mycorrhizal fungi along a 52-years agricultural recultivation chronosequence. FEMS Microbiology Ecology, 2017, 93, .	1.3	19
300	Underground riparian wood: Buried stem and coarse root structures of Black Poplar (Populus nigra) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.1	19
301	Growth rate trades off with enzymatic investment in soil filamentous fungi. Scientific Reports, 2020, 10, 11013.	1.6	19
302	Research trends of microplastics in the soil environment: Comprehensive screening of effects. Soil Ecology Letters, 2022, 4, 109-118.	2.4	19
303	Indirect Effects of Microplastic-Contaminated Soils on Adjacent Soil Layers: Vertical Changes in Soil Physical Structure and Water Flow. Frontiers in Environmental Science, 2021, 9, .	1.5	19
304	Mechanisms underpinning nonadditivity of global change factor effects in the plantâ€“soil system. New Phytologist, 2021, 232, 1535-1539.	3.5	19
305	Palatability of carbonized materials to Collembola. Applied Soil Ecology, 2013, 64, 63-69.	2.1	18
306	Sebacinales, but not total root associated fungal communities, are affected by landâ€use intensity. New Phytologist, 2014, 203, 1036-1040.	3.5	18

#	Article	IF	Citations
307	Potential Environmental Impacts of an â€œUnderground Revolutionâ€: A Response to Bender et al.. Trends in Ecology and Evolution, 2017, 32, 8-10.	4.2	18
308	The role of active movement in fungal ecology and community assembly. Movement Ecology, 2019, 7, 36.	1.3	18
309	Traitâ€based approaches reveal fungal adaptations to nutrientâ€limiting conditions. Environmental Microbiology, 2020, 22, 3548-3560.	1.8	18
310	Network traits predict ecological strategies in fungi. ISME Communications, 2022, 2, .	1.7	18
311	Opportunities and Risks of the â€œMetaverseâ€•For Biodiversity and the Environment. Environmental Science & Technology, 2022, 56, 4721-4723.	4.6	18
312	Environmental Filtering Is a Relic. A Response to Cadotte and Tucker. Trends in Ecology and Evolution, 2017, 32, 882-884.	4.2	17
313	The relative importance of ecological drivers of arbuscular mycorrhizal fungal distribution varies with taxon phylogenetic resolution. New Phytologist, 2019, 224, 936-948.	3.5	17
314	Neighbours of arbuscularâ€mycorrhiza associating trees are colonized more extensively by arbuscular mycorrhizal fungi than their conspecifics in ectomycorrhiza dominated stands. New Phytologist, 2020, 227, 10-13.	3.5	17
315	Plant invasion of native grassland on serpentine soils has no major effects upon selected physical and biological properties. Soil Biology and Biochemistry, 2005, 37, 2277-2282.	4.2	16
316	A new tool of the trade: plant-trait based approaches in microbial ecology. Plant and Soil, 2013, 365, 35-40.	1.8	16
317	Selfâ€<scp>DNA</scp>: a blessing in disguise?. New Phytologist, 2015, 207, 488-490.	3.5	16
318	Microbial biospherics: The experimental study of ecosystem function and evolution. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11093-11098.	3.3	16
319	Ten simple rules for hosting artists in a scientific lab. PLoS Computational Biology, 2021, 17, e1008675.	1.5	16
320	Protists and collembolans alter microbial community composition, CÂdynamics and soil aggregation in simplified consumerâ€“prey systems. Biogeosciences, 2020, 17, 4961-4980.	1.3	16
321	Temperature- and moisture-dependent soil water repellency induced by the basidiomycete Agaricus bisporus. Pedobiologia, 2012, 55, 59-61.	0.5	15
322	The Leinster and Cobbold indices improve inferences about microbial diversity. Fungal Ecology, 2014, 11, 1-7.	0.7	15
323	Underground riparian wood: Reconstructing the processes influencing buried stem and coarse root structures of Black Poplar (Populus nigra L.). Geomorphology, 2017, 279, 199-208.	1.1	15
324	Solving the puzzle of yeast survival in ephemeral nectar systems: exponential growth is not enough. FEMS Microbiology Ecology, 2017, 93, .	1.3	15

#	Article	IF	Citations
325	Belowâ€and aboveground traits explain local abundance, and regional, continental and global occurrence frequencies of grassland plants. Oikos, 2021, 130, 110-120.	1.2	15
326	Diversity of archaea and niche preferences among putative ammoniaâ€oxidizing Nitrososphaeria dominating across European arable soils. Environmental Microbiology, 2022, 24, 341-356.	1.8	15
327	A novel in vitro cultivation system to produce and isolate soluble factors released from hyphae of arbuscular mycorrhizal fungi. Biotechnology Letters, 2006, 28, 1071-1076.	1.1	14
328	Direct, positive feedbacks produce instability in models of interrelationships among soil structure, plants and arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 2011, 43, 1198-1206.	4.2	14
329	Rotation of hyphal in-growth cores has no confounding effects on soil abiotic properties. Soil Biology and Biochemistry, 2014, 79, 78-80.	4.2	14
330	Arbuscular mycorrhizal fungi negatively affect soil seed bank viability. Ecology and Evolution, 2016, 6, 7683-7689.	0.8	14
331	Physical environmental controls on riparian root profiles associated with black poplar (<scp><i>Populus nigra</i></scp> L.) along the Tagliamento River, Italy. Earth Surface Processes and Landforms, 2017, 42, 1262-1273.	1.2	14
332	Fungal Decision to Exploit or Explore Depends on Growth Rate. Microbial Ecology, 2018, 75, 289-292.	1.4	14
333	Evidence for Subsoil Specialization in Arbuscular Mycorrhizal Fungi. Frontiers in Ecology and Evolution, 2018, 6, .	1.1	14
334	Compositional Divergence and Convergence in Local Communities and Spatially Structured Landscapes. PLoS ONE, 2012, 7, e35942.	1.1	14
335	Evolutionary betâ€hedging in arbuscular mycorrhizaâ€associating angiosperms. New Phytologist, 2022, 233, 1984-1987.	3.5	14
336	Arbuscular Mycorrhizal Percent Root Infection and Infection Intensity of Bromus hordeaceus Grown in Elevated Atmospheric CO2. Mycologia, 1998, 90, 199.	0.8	13
337	Challenging cherished ideas in mycorrhizal ecology: the <scp>B</scp>aylis postulate. New Phytologist, 2014, 204, 1-3.	3.5	13
338	Biodiversity research: data without theoryÃ¢â‚¬â€theory without data. Frontiers in Ecology and Evolution, 2015, 3, .	1.1	13
339	Resilience of Fungal Communities to Elevated CO2. Microbial Ecology, 2016, 72, 493-495.	1.4	13
340	Testing Contrast Agents to Improve Micro Computerized Tomography (Î¼CT) for Spatial Location of Organic Matter and Biological Material in Soil. Frontiers in Environmental Science, 2019, 7, .	1.5	13
341	Myristate and the ecology of AM fungi: significance, opportunities, applications and challenges. New Phytologist, 2020, 227, 1610-1614.	3.5	13
342	Specialist nectar-yeasts decline with urbanization in Berlin. Scientific Reports, 2017, 7, 45315.	1.6	12

#	Article	IF	Citations
343	Latitudinal constraints in responsiveness of plants to arbuscular mycorrhiza: the â€˜sunâ€worshipperâ€™ hypothesis. New Phytologist, 2019, 224, 552-556.	3.5	12
344	Time-Dependent Toxicity of Tire Particles on Soil Nematodes. Frontiers in Environmental Science, 2021, 9, .	1.5	12
345	Drought legacy effects on root morphological traits and plant biomass via soil biota feedback. New Phytologist, 2022, 236, 222-234.	3.5	12
346	Local stability properties of complex, speciesâ€rich soil food webs with functional block structure. Ecology and Evolution, 2021, 11, 16070-16081.	0.8	11
347	The influence of environmental degradation processes on the arbuscular mycorrhizal fungal community associated with yew (Taxus baccata L.), an endangered tree species from Mediterranean ecosystems of Southeast Spain. Plant and Soil, 2013, 370, 355-366.	1.8	10
348	Soil biota effects on local abundances of three grass species along a land-use gradient. Oecologia, 2015, 179, 249-259.	0.9	10
349	Tree diversity modifies distanceâ€dependent effects on seedling emergence but not plantâ€“soil feedbacks of temperate trees. Ecology, 2015, 96, 1529-1539.	1.5	10
350	Applying allometric theory to fungi. ISME Journal, 2017, 11, 2175-2180.	4.4	10
351	Biogeographical constraints in Glomeromycotinan distribution across forest habitats in China. Journal of Ecology, 2019, 107, 684-695.	1.9	10
352	Exploring the agricultural parameter space for crop yield and sustainability. New Phytologist, 2019, 223, 517-519.	3.5	10
353	Soil biota shift with land use change from pristine rainforest and Savannah (Cerrado) to agriculture in southern Amazonia. Molecular Ecology, 2021, 30, 4899-4912.	2.0	10
354	Similarity of anthropogenic stressors is multifaceted and scale dependent. Natural Sciences, 2022, 2, .	1.0	10
355	Microplastics Reduce the Negative Effects of Litter-Derived Plant Secondary Metabolites on Nematodes in Soil. Frontiers in Environmental Science, 2021, 9, .	1.5	10
356	Effects of microplastics on crop nutrition in fertile soils and interaction with arbuscular mycorrhizal fungi. , 2022, 1, 66-72.		10
357	Biotic Interactions as Mediators of Context-Dependent Biodiversity-Ecosystem Functioning Relationships. Research Ideas and Outcomes, 0, 8, .	1.0	10
358	Broaden chemicals scope in biodiversity targets. Science, 2022, 376, 1280-1280.	6.0	10
359	The evolution of mutualism from reciprocal parasitism: more ecological clothes for the Prisonerâ€™s Dilemma. Evolutionary Ecology, 2015, 29, 627-641.	0.5	9
360	Increases in Soil Aggregation Following Phosphorus Additions in a Tropical Premontane Forest are Not Driven by Root and Arbuscular Mycorrhizal Fungal Abundances. Frontiers in Earth Science, 2016, 3, .	0.8	9

#	Article	IF	Citations
361	Soil substrates affect responses of root feeding larvae to their hosts at multiple levels: Orientation, locomotion and feeding. Basic and Applied Ecology, 2016, 17, 115-124.	1.2	9
362	Widely distributed native and alien plant species differ in arbuscular mycorrhizal associations and related functional trait interactions. Ecography, 2018, 41, 1583-1593.	2.1	9
363	Machine learning with the hierarchyâ€ofâ€hypotheses (HoH) approach discovers novel pattern in studies on biological invasions. Research Synthesis Methods, 2020, 11, 66-73.	4.2	9
364	Arbuscular mycorrhiza has little influence on N2O potential emissions compared to plant diversity in experimental plant communities. FEMS Microbiology Ecology, 2020, 96, .	1.3	9
365	Mimicking climate warming effects on Alaskan soil microbial communities via gradual temperature increase. Scientific Reports, 2020, 10, 8533.	1.6	9
366	Scientists need to better communicate the links between pandemics and global environmental change. Nature Ecology and Evolution, 2021, 5, 1466-1467.	3.4	9
367	Effects of perfluoroalkyl and polyfluoroalkyl substances (PFAS) on soil structure and function. Soil Ecology Letters, 2023, 5, 108-117.	2.4	9
368	Reconstructing the development of sampled sites on fluvial island surfaces of the Tagliamento River, Italy, from historical sources. Earth Surface Processes and Landforms, 2015, 40, 629-641.	1.2	8
369	Metacommunities and symbiosis: hosts of challenges. Trends in Ecology and Evolution, 2012, 27, 588-589.	4.2	7
370	Arbuscular mycorrhizal fungal and soil microbial communities in African Dark Earths. FEMS Microbiology Ecology, 2018, 94, .	1.3	7
371	Definition of Core Bacterial Taxa in Different Root Compartments of Dactylis glomerata, Grown in Soil under Different Levels of Land Use Intensity. Diversity, 2020, 12, 392.	0.7	7
372	Soil Saprobic Fungi Differ in Their Response to Gradually and Abruptly Delivered Copper. Frontiers in Microbiology, 2020, 11, 1195.	1.5	7
373	Diversity of Growth Responses of Soil Saprobic Fungi to Recurring Heat Events. Frontiers in Microbiology, 2020, 11, 1326.	1.5	7
374	Proximal and distal mechanisms through which arbuscular mycorrhizal associations alter terrestrial denitrification. Plant and Soil, 2022, 476, 315-336.	1.8	7
375	Mycorrhizal, Endophytic and Ecomorphological Status of Tree Roots in the Canopy of a Montane Rain Forest. Biotropica, 2011, 43, 401-404.	0.8	6
376	Collembola laterally move biochar particles. PLoS ONE, 2019, 14, e0224179.	1.1	6
377	SMART Research: Toward Interdisciplinary River Science in Europe. Frontiers in Environmental Science, 2020, 8, .	1.5	6
378	Suitability of Mycorrhiza-Defective Rice and Its Progenitor for Studies on the Control of Nitrogen Loss in Paddy Fields via Arbuscular Mycorrhiza. Frontiers in Microbiology, 2020, 11, 186.	1.5	6

#	Article	IF	Citations
379	Mycorrhizal suppression and phosphorus addition influence the stability of plant community composition and function in a temperate steppe. Oikos, 2021, 130, 354-365.	1.2	6
380	Legacy effects of preâ€crop plant functional group on fungal root symbionts of barley. Ecological Applications, 2021, 31, e02378.	1.8	6
381	Mycorrhizal technologies for an agriculture of the middle. Plants People Planet, 2021, 3, 454-461.	1.6	6
382	Soil fungi invest into asexual sporulation under resource scarcity, but trait spaces of individual isolates are unique. Environmental Microbiology, 2022, 24, 2962-2978.	1.8	6
383	POLYMERS AND MICROORGANISMS. , 2005, , 287-294.		5
384	Expanding the toolbox of nutrient limitation studies: A novel method of soil microbial inâ€growth bags to evaluate nutrient demands in tropical forests. Functional Ecology, 2019, 33, 1536-1548.	1.7	5
385	Do soil bacterial communities respond differently to abrupt or gradual additions of copper?. FEMS Microbiology Ecology, 2019, 95, .	1.3	5
386	Stress priming affects fungal competition â€•evidence from a combined experimental and modelling study. Environmental Microbiology, 2021, 23, 5934-5945.	1.8	5
387	Potential of Arbuscular Mycorrhizal Technology in Date Palm Production. , 2011, , 449-476.		5
388	Ten simple rules for increased lab resilience. PLoS Computational Biology, 2020, 16, e1008313.	1.5	5
389	Soil conditions drive belowâ€ground trait space in temperate agricultural grasslands. Journal of Ecology, 2022, 110, 1189-1200.	1.9	5
390	Accounting for the adaptation deficit of non-mycorrhizal plants in experiments. Plant and Soil, 2013, 366, 33-34.	1.8	4
391	Spatial and niche-based ecological processes drive the distribution of endophytic Sebacinales in soil and root of grassland communities. FEMS Microbiology Ecology, 2016, 92, fiw079.	1.3	4
392	Impact of high carbon amendments and pre-crops on soil bacterial communities. Biology and Fertility of Soils, 2021, 57, 305-317.	2.3	4
393	Soil Physico-Chemical Properties Change Across an Urbanity Gradient in Berlin. Frontiers in Environmental Science, 2021, 9, .	1.5	4
394	Functional, not Taxonomic, Composition of Soil Fungi Reestablishes to Pre-mining Initial State After 52 Years of Recultivation. Microbial Ecology, 2023, 86, 213-223.	1.4	4
395	Are there temporal trends in root architecture and soil aggregation for Hordeum vulgare breeding lines?. Applied Soil Ecology, 2013, 65, 31-34.	2.1	3
396	Assessing soil ecosystem processes â€" biodiversity relationships in a nature reserve in Central Europe. Plant and Soil, 2018, 424, 491-501.	1.8	3

#	Article	IF	Citations
397	Response to the Editor: Assessing the robustness of communities and ecosystems in global change research. Global Change Biology, 2020, 26, e4-e5.	4.2	3
398	Precipitation and temperature shape the biogeography of arbuscular mycorrhizal fungi across the Brazilian Caatinga. Journal of Biogeography, 2022, 49, 1137-1150.	1.4	3
399	Concentrationâ€dependent response of soil parameters and functions to trifluoroacetic acid. European Journal of Soil Science, 2022, 73, .	1.8	3
400	Relative strengths of relationships between plant, microbial, and environmental parameters in heavy-metal contaminated floodplain soil. Pedobiologia, 2012, 55, 15-23.	0.5	2
401	Do fungi need salt licks? No evidence for fungal contribution to the Sodium Ecosystem Respiration Hypothesis based on lab and field experiments in Southern Ecuador. Fungal Ecology, 2018, 32, 18-28.	0.7	2
402	Clear Language for Ecosystem Management in the Anthropocene: A Reply to Bridgewater and Hemming. BioScience, 2020, 70, 374-376.	2.2	2
403	Fungusâ€“bacterium associations are widespread in fungal cultures isolated from a semi-arid natural grassland in Germany. FEMS Microbiology Ecology, 2021, 97, .	1.3	2
404	Climate Change Effects on Fungi in Agroecosystems. Advances in Agroecology, 2006, , 211-230.	0.3	2
405	Fungal response to abruptly or gradually delivered antifungal agent amphotericin B is growth stage dependent. Environmental Microbiology, 2021, 23, 7701-7709.	1.8	2
406	The artist who co-authored a paper and expanded my professional network. Nature, 2020, , .	13.7	2
407	Evidence-Based Data Analysis: Protecting the World From Bad Code? Comment by Veresoglou and Rillig. American Statistician, 2015, 69, 257-257.	0.9	1
408	The influence of sampled biomass on speciesâ€“area relationships of grassland plants. New Phytologist, 2016, 211, 382-385.	3.5	1
409	Plant community, geographic distance and abiotic factors play different roles in predicting AMF biogeography at the regional scale in northern China. Environmental Microbiology, 2016, 8, 1048.	1.8	1
410	Research experience modifies how participants profit from journal clubs in academia. Journal of Biological Education, 2019, 53, 327-332.	0.8	1
411	Excluding arbuscular mycorrhiza lowers variability in soil respiration but slows down recovery from perturbations. Ecosphere, 2020, 11, e03308.	1.0	1
412	Science-informed salmon conservation strategies. Science, 2021, 374, 700-700.	6.0	1
413	Non-Mycorrhizal Fungal Presence Within Roots Increases Across an Urban Gradient in Berlin, Germany. Frontiers in Environmental Science, 2022, 10, .	1.5	1
414	Microbial self-recycling and biospherics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2113148118.	3.3	0

#	Article	IF	Citations
415	Arbuscular Mycorrhiza Reduced Nitrogen Loss via Runoff, Leaching, and Emission of N2O and NH3 from Microcosms of Paddy Fields. Water, Air, and Soil Pollution, 2022, 233, 1.	1.1	0