Rebecca L Mcculley

List of Publications by Year
in descending order

88 papers	8,477 citations	94433 37 h-index	49909 87 g-index
90 all docs	90 docs citations	90 times ranked	10160 citing authors

#	Article	IF	Citations
1	Consistent responses of soil microbial communities to elevated nutrient inputs in grasslands across the globe. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10967-10972.	7.1	1,023
2	Herbivores and nutrients control grassland plant diversity via light limitation. Nature, 2014, 508, 517-520.	27.8	669
3	Plant diversity predicts beta but not alpha diversity of soil microbes across grasslands worldwide. Ecology Letters, 2015, 18, 85-95.	6.4	612
4	Reconstructing the Microbial Diversity and Function of Pre-Agricultural Tallgrass Prairie Soils in the United States. Science, 2013, 342, 621-624.	12.6	480
5	Productivity Is a Poor Predictor of Plant Species Richness. Science, 2011, 333, 1750-1753.	12.6	463
6	Eutrophication weakens stabilizing effects of diversity in natural grasslands. Nature, 2014, 508, 521-525.	27.8	409
7	Grassland productivity limited by multiple nutrients. Nature Plants, 2015, 1, 15080.	9.3	403
8	Addition of multiple limiting resources reduces grassland diversity. Nature, 2016, 537, 93-96.	27.8	355
9	Carbon fluxes, nitrogen cycling, and soil microbial communities in adjacent urban, native and agricultural ecosystems. Global Change Biology, 2005, 11, 575-587.	9.5	321
10	Local loss and spatial homogenization of plant diversity reduce ecosystem multifunctionality. Nature Ecology and Evolution, 2018, 2, 50-56.	7.8	172
11	A method for simultaneous measurement of soil bacterial abundances and community composition via 16S rRNA gene sequencing. Soil Biology and Biochemistry, 2016, 96, 145-151.	8.8	170
12	Effects of tree species and N additions on forest floor microbial communities and extracellular enzyme activities. Soil Biology and Biochemistry, 2010, 42, 2161-2173.	8.8	168
13	SOIL RESPIRATION AND NUTRIENT CYCLING IN WOODED COMMUNITIES DEVELOPING IN GRASSLAND. Ecology, 2004, 85, 2804-2817.	3.2	160
14	Nutrient uptake as a contributing explanation for deep rooting in arid and semi-arid ecosystems. Oecologia, 2004, 141, 620-628.	2.0	145
15	Anthropogenic nitrogen deposition predicts local grassland primary production worldwide. Ecology, 2015, 96, 1459-1465.	3.2	143
16	Plant speciesâ€™ origin predicts dominance and response to nutrient enrichment and herbivores in global grasslands. Nature Communications, 2015, 6, 7710.	12.8	143
17	Global change effects on plant communities are magnified by time and the number of global change factors imposed. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17867-17873.	7.1	141
18	FORAGES AND PASTURES SYMPOSIUM: Fungal endophytes of tall fescue and perennial ryegrass: Pasture friend or foe?12. Journal of Animal Science, 2013, 91, 2379-2394.	0.5	112

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19	Predicting the responsiveness of soil biodiversity to deforestation: a crossâ€biome study. Global Change Biology, 2014, 20, 2983-2994.	9.5	101
20	Cross-biome patterns in soil microbial respiration predictable from evolutionary theory on thermal adaptation. Nature Ecology and Evolution, 2019, 3, 223-231.	7.8	100
21	Soil moisture and soil-litter mixing effects on surface litter decomposition: A controlled environment assessment. Soil Biology and Biochemistry, 2014, 72, 123-132.	8.8	99
22	Tall fescue cultivar and fungal endophyte combinations influence plant growth and root exudate composition. Frontiers in Plant Science, 2015, 6, 183.	3.6	90
23	Conservation of nitrogen increases with precipitation across a major grassland gradient in the Central Great Plains of North America. Oecologia, 2009, 159, 571-581.	2.0	89
24	Abundance of introduced species at home predicts abundance away in herbaceous communities. Ecology Letters, 2011, 14, 274-281.	6.4	88
25	Regional Patterns in Carbon Cycling Across the Great Plains of North America. Ecosystems, 2005, 8, 106-121.	3.4	83
26	Effects of multiple climate change factors on the tall fescueâ€"fungal endophyte symbiosis: infection frequency and tissue chemistry. New Phytologist, 2011, 189, 797-805.	7.3	76
27	Sensitivity of global soil carbon stocks to combined nutrient enrichment. Ecology Letters, 2019, 22, 936-945.	6.4	75
28	General destabilizing effects of eutrophication on grassland productivity at multiple spatial scales. Nature Communications, 2020, 11, 5375.	12.8	75
29	Soil Respiration in a Subtropical Savanna Parkland: Response to Water Additions. Soil Science Society of America Journal, 2007, 71, 820-828.	2.2	72
30	Predicting invasion in grassland ecosystems: is exotic dominance the real embarrassment of richness?. Global Change Biology, 2013, 19, 3677-3687.	9.5	70
31	Infection with a Shoot-Specific Fungal Endophyte (EpichloÃ«) Alters Tall Fescue Soil Microbial Communities. Microbial Ecology, 2016, 72, 197-206.	2.8	67
32	Increasing effects of chronic nutrient enrichment on plant diversity loss and ecosystem productivity over time. Ecology, 2021, 102, e03218.	3.2	62
33	Alkaloids may not be responsible for endophyteâ€associated reductions in tall fescue decomposition rates. Functional Ecology, 2010, 24, 460-468.	3.6	60
34	Fungal endophyte infection increases carbon sequestration potential of southeastern USA tall fescue stands. Soil Biology and Biochemistry, 2012, 44, 81-92.	8.8	59
35	Soilâ€"Litter Mixing Accelerates Decomposition in a Chihuahuan Desert Grassland. Ecosystems, 2013, 16, 183-195.	3.4	59
36	Soil net nitrogen mineralisation across global grasslands. Nature Communications, 2019, 10, 4981.	12.8	57

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37	Nutrient availability controls the impact of mammalian herbivores on soil carbon and nitrogen pools in grasslands. Global Change Biology, 2020, 26, 2060-2071.	9.5	43
38	Herbivory and eutrophication mediate grassland plant nutrient responses across a global climatic gradient. Ecology, 2018, 99, 822-831.	3.2	42
39	Climate and local environment structure asynchrony and the stability of primary production in grasslands. Global Ecology and Biogeography, 2020, 29, 1177-1188.	5.8	41
40	Spatial heterogeneity in species composition constrains plant community responses to herbivory and fertilisation. Ecology Letters, 2018, 21, 1364-1371.	6.4	38
41	Soil Health as a Transformational Change Agent for US Grazing Lands Management. Rangeland Ecology and Management, 2018, 71, 403-408.	2.3	38
42	Fungal endophyte presence and genotype affect plant diversity and soil-to-atmosphere trace gas fluxes. Plant and Soil, 2013, 364, 15-27.	3.7	36
43	Compositional differences in simulated root exudates elicit a limited functional and compositional response in soil microbial communities. Frontiers in Microbiology, 2015, 6, 817.	3.5	34
44	Belowground Biomass Response to Nutrient Enrichment Depends on Light Limitation Across Globally Distributed Grasslands. Ecosystems, 2019, 22, 1466-1477.	3.4	34
45	Position Statement on Crop Adaptation to Climate Change. Crop Science, 2011, 51, 2337-2343.	1.8	33
46	Fungal endophyte infection and host genetic background jointly modulate host response to an aphidâ€transmitted viral pathogen. Journal of Ecology, 2013, 101, 1007-1018.	4.0	31
47	Warming reduces tall fescue abundance but stimulates toxic alkaloid concentrations in transition zone pastures of the U.S.. Frontiers in Chemistry, 2014, 2, 88.	3.6	31
48	Regional Contingencies in the Relationship between Aboveground Biomass and Litter in the Worldâ€™s Grasslands. PLoS ONE, 2013, 8, e54988.	2.5	27
49	Loss of soil organic carbon following natural forest conversion to Chinese fir plantation. Forest Ecology and Management, 2019, 449, 117476.	3.2	27
50	Microbial processing of plant remains is coâ€limited by multiple nutrients in global grasslands. Global Change Biology, 2020, 26, 4572-4582.	9.5	27
51	Determinants of community compositional change are equally affected by global change. Ecology Letters, 2021, 24, 1892-1904.	6.4	27
52	Global impacts of fertilization and herbivore removal on soil net nitrogen mineralization are modulated by local climate and soil properties. Global Change Biology, 2020, 26, 7173-7185.	9.5	25
53	Nutrient enrichment increases invertebrate herbivory and pathogen damage in grasslands. Journal of Ecology, 2022, 110, 327-339.	4.0	25
54	A continentâ€wide study reveals clear relationships between regional abiotic conditions and postâ€dispersal seed predation. Journal of Biogeography, 2015, 42, 662-670.	3.0	23

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55	Effects of nutrient supply, herbivory, and host community on fungal endophyte diversity. Ecology, 2019, 100, e02758.	3.2	22
56	Spatial Variability in Soil Microbial Communities in a Nitrogenâ€Saturated Hardwood Forest Watershed. Soil Science Society of America Journal, 2011, 75, 280-286.	2.2	21
57	Seasonal Effects Stronger than Three-Year Climate Manipulation on Grassland Soil Microbial Community. Soil Science Society of America Journal, 2015, 79, 1352-1365.	2.2	21
58	Environmental factors influencing fine-scale distribution of Antarcticaâ€™s only endemic insect. Oecologia, 2020, 194, 529-539.	2.0	21
59	Microbial Community Composition across the Great Plains. Soil Science Society of America Journal, 2004, 68, 106.	2.2	21
60	Does Fungal Endophyte Infection Improve Tall Fescueâ€™s Growth Response to Fire and Water Limitation?. PLoS ONE, 2014, 9, e86904.	2.5	18
61	Climate drivers, host identity and fungal endophyte infection determine virus prevalence in a grassland ecosystem. Journal of Ecology, 2014, 102, 690-699.	4.0	17
62	Ecophysiological Responses of Tall Fescue Genotypes to Fungal Endophyte Infection, Elevated Temperature, and Precipitation. Crop Science, 2015, 55, 2895-2909.	1.8	17
63	Performance of Endophyte Infected Tall Fescue in Europe and North America. PLoS ONE, 2016, 11, e0157382.	2.5	17
64	Aboveground EpichloÃ« coenophialaâ€"Grass Associations Do Not Affect Belowground Fungal Symbionts or Associated Plant, Soil Parameters. Microbial Ecology, 2016, 72, 682-691.	2.8	16
65	The effect of a quorum-quenching enzyme on leaf litter decomposition. Soil Biology and Biochemistry, 2013, 64, 65-67.	8.8	15
66	Climate change and EpichloÃ« coenophiala association modify belowground fungal symbioses of tall fescue host. Fungal Ecology, 2018, 31, 37-46.	1.6	15
67	Conversion of Tallgrass Prairie to Woodland: Consequences for Carbon and Nitrogen Cycling. American Midland Naturalist, 2012, 167, 307-321.	0.4	14
68	Time in pasture rotation alters soil microbial community composition and function and increases carbon sequestration potential in a temperate agroecosystem. Science of the Total Environment, 2020, 698, 134233.	8.0	14
69	Temporal rarity is a better predictor of local extinction risk than spatial rarity. Ecology, 2021, 102, e03504.	3.2	14
70	Restoration of Native Warm Season Grassland Species in a Tall Fescue Pasture Using Prescribed Fire and Herbicides. Restoration Ecology, 2012, 20, 194-201.	2.9	13
71	Nutrient addition shifts plant community composition towards earlier flowering species in some prairie ecoregions in the U.S. Central Plains. PLoS ONE, 2017, 12, e0178440.	2.5	13
72	Asexual EpichloÃ« Endophytes Do Not Consistently Alter Arbuscular Mycorrhizal Fungi Colonization in Three Grasses. American Midland Naturalist, 2018, 179, 157-165.	0.4	13

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73	Fungal endophyte symbiosis alters nitrogen source of tall fescue host, but not nitrogen fixation in co-occurring red clover. Plant and Soil, 2016, 405, 243-256.	3.7	12
74	Spatial turnover of multiple ecosystem functions is more associated with plant than soil microbial Î²â€diversity. Ecosphere, 2021, 12, e03644.	2.2	12
75	Nitrogen increases earlyâ€stage and slows lateâ€stage decomposition across diverse grasslands. Journal of Ecology, 2022, 110, 1376-1389.	4.0	12
76	Effects of Tall Fescue and Its Fungal Endophyte on the Development and Survival of Tawny-Edged Skippers (Lepidoptera: Hesperiidae). Environmental Entomology, 2016, 45, 142-149.	1.4	11
77	Tall Fescue and E. coenophiala Genetics Influence Root-Associated Soil Fungi in a Temperate Grassland. Frontiers in Microbiology, 2019, 10, 2380.	3.5	11
78	Nitrogen but not phosphorus addition affects symbiotic N2 fixation by legumes in natural and semi-natural grasslands located on four continents. Plant and Soil, 2022, 478, 689-707.	3.7	11
79	Accurate detection of soil microbial community responses to environmental change requires the use of multiple methods. Soil Biology and Biochemistry, 2022, 169, 108685.	8.8	10
80	Fungal endophyte infection increases tall fescue's survival, growth, and flowering in a reconstructed prairie. Restoration Ecology, 2019, 27, 1000-1007.	2.9	9
81	Opposing community assembly patterns for dominant and nondominant plant species in herbaceous ecosystems globally. Ecology and Evolution, 2021, 11, 17744-17761.	1.9	8
82	Ecosystem function differs between Old World bluestem invaded and native coastal prairie in South Texas. Biological Invasions, 2012, 14, 1483-1500.	2.4	7
83	Seed dynamics of the liana<i>Euonymus fortunei</i>(Celastraceae) and implications for invasibility. Journal of the Torrey Botanical Society, 2018, 145, 225-236.	0.3	5
84	Do tradeâ€offs govern plant speciesâ€™ responses to different global change treatments?. Ecology, 2022, 103, e3626.	3.2	5
85	Impacts of nutrient addition on soil carbon and nitrogen stoichiometry and stability in globally-distributed grasslands. Biogeochemistry, 2022, 159, 353-370.	3.5	5
86	Indications of Deep Soil Water Usage by Limber Pine (Pinus flexilis) and Skunkbush Sumac (Rhus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2 152, 178-182.	0.4	2
87	Grazing and No-Till Cropping Impacts on Nitrogen Retention in Dryland Agroecosystems. Journal of Environmental Quality, 2014, 43, 1963-1971.	2.0	1
88	Rangeland Ecology and Management, Volume 71, Issue 4. Rangelands, 2018, 40, 127-128.	1.9	0