Kari E Dunfield

List of Publications by Year
in descending order

94 papers	4,394 citations	126907 33 h-index	114465 63 g-index
97 all docs	97 docs citations	97 times ranked	5386 citing authors

#	Article	IF	Citations
1	Inside the root microbiome: Bacterial root endophytes and plant growth promotion. American Journal of Botany, 2013, 100, 1738-1750.	1.7	500
2	Cycling of extracellular DNA in the soil environment. Soil Biology and Biochemistry, 2007, 39, 2977-2991.	8.8	382
3	Seasonal Changes in the Rhizosphere MicrobialCommunities Associated with Field-Grown Genetically ModifiedCanola (Brassicanapus). Applied and Environmental Microbiology, 2003, 69, 7310-7318.	3.1	210
4	Impact of Genetically Modified Crops on Soilâ€•and Plantâ€Associated Microbial Communities. Journal of Environmental Quality, 2004, 33, 806-815.	2.0	186
5	Linking alkaline phosphatase activity with bacterial phoD gene abundance in soil from a long-term management trial. Geoderma, 2015, 257-258, 115-122.	5.1	173
6	Chapter 4 Recent Advances in the Microbial Safety of Fresh Fruits and Vegetables. Advances in Food and Nutrition Research, 2009, 57, 155-208.	3.0	155
7	Soil bacterial phoD gene abundance and expression in response toÂapplied phosphorus and long-term management. Soil Biology and Biochemistry, 2015, 88, 137-147.	8.8	148
8	Quantification of bacterial non-specific acid (phoC) and alkaline (phoD) phosphatase genes in bulk and rhizosphere soil from organically managed soybean fields. Applied Soil Ecology, 2017, 111, 48-56.	4.3	140
9	Diversity of bacterial communities in the rhizosphere and root interior of field-grown genetically modified Brassica napus. FEMS Microbiology Ecology, 2001, 38, 1-9.	2.7	111
10	When too much isnâ€™t enough: Does current food production meet global nutritional needs?. PLoS ONE, 2018, 13, e0205683.	2.5	110
11	Control of Salmonella on Sprouting Mung Bean and Alfalfa Seeds by Using a Biocontrol Preparation Based on Antagonistic Bacteria and Lytic Bacteriophages. Journal of Food Protection, 2010, 73, 9-17.	1.7	91
12	The potential of soil amendments for restoring severely disturbed grasslands. Applied Soil Ecology, 2012, 60, 77-83.	4.3	91
13	Impact of long-term phosphorus fertilizer inputs on bacterial phoD gene community in a maize field, Northeast China. Science of the Total Environment, 2019, 669, 1011-1018.	8.0	89
14	Season and management related changes in the diversity of nitrifying and denitrifying bacteria over winter and spring. Applied Soil Ecology, 2010, 44, 138-146.	4.3	85
15	Abundance and gene expression in nitrifier and denitrifier communities associated with a field scale spring thaw N2O flux event. Soil Biology and Biochemistry, 2014, 73, 1-9.	8.8	82
16	Soil alkaline phosphatase activity and bacterial phoD gene abundance and diversity under long-term nitrogen and manure inputs. Geoderma, 2019, 349, 36-44.	5.1	72
17	Wildfire severity reduces richness and alters composition of soil fungal communities in boreal forests of western Canada. Global Change Biology, 2019, 25, 2310-2324.	9.5	72
18	Micrometeorological measurements over 3Âyears reveal differences in N₂O emissions between annual and perennial crops. Global Change Biology, 2016, 22, 1244-1255.	9.5	65

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19	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.	3.7	64
20	Molecular Analysis of Carbon Monoxide-Oxidizing Bacteria Associated with Recent Hawaiian Volcanic Deposits. Applied and Environmental Microbiology, 2004, 70, 4242-4248.	3.1	62
21	Quantifying the relationships between soil fraction mass, fraction carbon, and total soil carbon to assess mechanisms of physical protection. Soil Biology and Biochemistry, 2019, 135, 95-107.	8.8	55
22	Molecular techniques and stable isotope ratios at natural abundance give complementary inferences about N2O production pathways in an agricultural soil following a rainfall event. Soil Biology and Biochemistry, 2015, 88, 197-213.	8.8	54
23	Separating the effect of crop from herbicide on soil microbial communities in glyphosate-resistant corn. Pedobiologia, 2009, 52, 253-262.	1.2	53
24	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
25	Plant communities mediate the interactive effects of invasion and drought on soil microbial communities. ISME Journal, 2020, 14, 1396-1409.	9.8	53
26	The influence of tillage on the structure of rhizosphere and root-associated arbuscular mycorrhizal fungal communities. Pedobiologia, 2011, 54, 235-241.	1.2	52
27	Plant response to biochar, compost, and mycorrhizal fungal amendments in postâ€mine sandpits. Restoration Ecology, 2018, 26, 63-72.	2.9	52
28	Mycorrhizal and Rhizobial Colonization of Genetically Modified and Conventional Soybeans. Applied and Environmental Microbiology, 2007, 73, 4365-4367.	3.1	46
29	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
30	It takes three to tango: the importance of microbes, host plant, and soil management to elucidate manipulation strategies for the plant microbiome. Canadian Journal of Microbiology, 2020, 66, 413-433.	1.7	44
31	Long-term diverse rotation alters nitrogen cycling bacterial groups and nitrous oxide emissions after nitrogen fertilization. Soil Biology and Biochemistry, 2020, 149, 107917.	8.8	42
32	Evaluation of a Biocontrol Preparation Consisting of Enterobacter asburiae JX1 and a Lytic Bacteriophage Cocktail To Suppress the Growth of Salmonella Javiana Associated with Tomatoes. Journal of Food Protection, 2009, 72, 2284-2292.	1.7	41
33	Differences in fieldâ€scale N₂O flux linked to crop residue removal under two tillage systems in cold climates. GCB Bioenergy, 2017, 9, 666-680.	5.6	41
34	Soil microbial communities as potential regulators of in situ N2O fluxes in annual and perennial cropping systems. Soil Biology and Biochemistry, 2016, 103, 262-273.	8.8	39
35	Isolate Identity Determines Plant Tolerance to Pathogen Attack in Assembled Mycorrhizal Communities. PLoS ONE, 2013, 8, e61329.	2.5	37
36	Reduction in Methane Emissions From Acidified Dairy Slurry Is Related to Inhibition of Methanosarcina Species. Frontiers in Microbiology, 2018, 9, 2806.	3.5	32

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37	Understanding methane emission from stored animal manure: A review to guide model development. Journal of Environmental Quality, 2021, 50, 817-835.	2.0	30
38	Impact of grassland afforestation with contrasting tree species on soil phosphorus fractions and alkaline phosphatase gene communities. Soil Biology and Biochemistry, 2021, 159, 108274.	8.8	29
39	Short-term response of soil N-cycling genes and transcripts to fertilization with nitrification and urease inhibitors, and relationship with field-scale N2O emissions. Soil Biology and Biochemistry, 2020, 142, 107703.	8.8	28
40	Temporal dynamics of plantâ€“soil feedback and rootâ€associated fungal communities over 100Âyears of invasion by a nonâ€native plant. Journal of Ecology, 2015, 103, 1557-1569.	4.0	25
41	Fungi from a non-native invasive plant increase its growth but have different growth effects on native plants. Biological Invasions, 2016, 18, 231-243.	2.4	25
42	Effects of 30 Years of Crop Rotation and Tillage on Bacterial and Archaeal Ammonia Oxidizers. Journal of Environmental Quality, 2016, 45, 940-948.	2.0	24
43	Validating novel oligonucleotide primers targeting three classes of bacterial non-specific acid phosphatase genes in grassland soils. Plant and Soil, 2018, 427, 39-51.	3.7	24
44	Analysis of the distribution and diversity in recent Hawaiian volcanic deposits of a putative carbon monoxide dehydrogenase large subunit gene. Environmental Microbiology, 2005, 7, 1405-1412.	3.8	23
45	Effects of Glacial Sediment Type and Land Use on Nitrate Patterns in Groundwater. Ground Water Monitoring and Remediation, 2015, 35, 68-81.	0.8	23
46	Virus occurrence in private and public wells in a fractured dolostone aquifer in Canada. Hydrogeology Journal, 2017, 25, 1117-1136.	2.1	23
47	Detection of transgenic cp4 epsps genes in the soil food web. Agronomy for Sustainable Development, 2009, 29, 497-501.	5.3	22
48	Riparian land-use systems impact soil microbial communities and nitrous oxide emissions in an agro-ecosystem. Science of the Total Environment, 2020, 724, 138148.	8.0	22
49	Improving plant biomass estimation in the field using partial least squares regression and ridge regression. Botany, 2016, 94, 501-508.	1.0	21
50	Targeting Bacteria and Methanogens To Understand the Role of Residual Slurry as an Inoculant in Stored Liquid Dairy Manure. Applied and Environmental Microbiology, 2018, 84, .	3.1	21
51	Transport of Escherichia coli through a Thick Vadose Zone. Journal of Environmental Quality, 2015, 44, 1424-1434.	2.0	19
52	Residue management leading to higher field-scale N 2 O flux is associated with different soil bacterial nitrifier and denitrifier gene community structures. Applied Soil Ecology, 2016, 108, 288-299.	4.3	19
53	Impacts of surface-applied residues on N-cycling soil microbial communities in miscanthus and switchgrass cropping systems. Applied Soil Ecology, 2018, 130, 79-83.	4.3	19
54	Altered soil organic matter composition and degradation after a decade of nitrogen fertilization in a temperate agroecosystem. Agriculture, Ecosystems and Environment, 2021, 310, 107305.	5.3	19

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55	Greenhouse Gas Mitigation through Dairy Manure Acidification. Journal of Environmental Quality, 2019, 48, 1435-1443.	2.0	17
56	Crop rotations differ in soil carbon stabilization efficiency, but the response to quality of structural plant inputs is ambiguous. Plant and Soil, 2020, 457, 207-224.	3.7	17
57	Changes in arbuscular mycorrhizal fungal communities during invasion by an exotic invasive plant. Acta Oecologica, 2015, 67, 66-74.	1.1	16
58	Sorption-desorption and biodegradation of sulfometuron-methyl and its effects on the bacterial communities in Amazonian soils amended with aged biochar. Ecotoxicology and Environmental Safety, 2021, 207, 111222.	6.0	16
59	Long-term N inputs shape microbial communities more strongly than current-year inputs in soils under 10-year continuous corn cropping. Soil Biology and Biochemistry, 2021, 160, 108361.	8.8	16
60	Dairy manure acidification reduces CH4 emissions over short and long-term. Environmental Technology (United Kingdom), 2021, 42, 2797-2804.	2.2	14
61	Microbial feedbacks on soil organic matter dynamics underlying the legacy effect of diversified cropping systems. Soil Biology and Biochemistry, 2022, 167, 108584.	8.8	14
62	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
63	Greenhouse Gas Emissions from Stored Dairy Slurry from Multiple Farms. Journal of Environmental Quality, 2016, 45, 1822-1828.	2.0	13
64	Dairy Manure Total Solid Levels Impact CH₄ Flux and Abundance of Methanogenic Archaeal Communities. Journal of Environmental Quality, 2017, 46, 232-236.	2.0	13
65	Assessing toluene biodegradation under temporally varying redox conditions in a fractured bedrock aquifer using stable isotope methods. Water Research, 2019, 165, 114986.	11.3	13
66	Monitoring Bacteroides spp. markers, nutrients, metals and Escherichia coli in soil and leachate after land application of three types of municipal biosolids. Water Research, 2015, 70, 255-265.	11.3	12
67	Toluene biodegradation in the vadose zone of a poplar phytoremediation system identified using metagenomics and toluene-specific stable carbon isotope analysis. International Journal of Phytoremediation, 2019, 21, 60-69.	3.1	12
68	Soil microbial communities influencing organic phosphorus mineralization in a coastal dune chronosequence in New Zealand. FEMS Microbiology Ecology, 2021, 97, .	2.7	12
69	Interactive role of topography and best management practices on N2O emissions from agricultural landscape. Soil and Tillage Research, 2021, 212, 105063.	5.6	12
70	Soil denitrifier community size changes with land use change to perennial bioenergy cropping systems. Soil, 2016, 2, 523-535.	4.9	11
71	Root Functional Trait and Soil Microbial Coordination: Implications for Soil Respiration in Riparian Agroecosystems. Frontiers in Plant Science, 2021, 12, 681113.	3.6	11
72	Quantification of toluene phytoextraction rates and microbial biodegradation functional profiles at a fractured bedrock phytoremediation site. Science of the Total Environment, 2020, 707, 135890.	8.0	10

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73	Metagenomic Comparison of Antibiotic Resistance Genes Associated with Liquid and Dewatered Biosolids. Journal of Environmental Quality, 2016, 45, 463-470.	2.0	9
74	Spatial variability of microbial communities in a fractured sedimentary rock matrix impacted by a mixed organics plume. Journal of Contaminant Hydrology, 2018, 218, 110-119.	3.3	9
75	Bacterial Endophytes: Diversity, Functional Importance, and Potential for Manipulation. Rhizosphere Biology, 2021, , 1-49.	0.6	9
76	A mechanistic model of methane emission from animal slurry with a focus on microbial groups. PLoS ONE, 2021, 16, e0252881.	2.5	8
77	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
78	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
79	Enemy of my enemy: evidence for variable soil biota feedbacks of Vincetoxicum rossicum on native plants. Biological Invasions, 2019, 21, 67-83.	2.4	7
80	Sodium Persulfate and Potassium Permanganate Inhibit Methanogens and Methanogenesis in Stored Liquid Dairy Manure. Journal of Environmental Quality, 2018, 47, 786-794.	2.0	6
81	Indications of shifting microbial communities associated with growing biomass crops on marginal lands in Southern Ontario. Agroforestry Systems, 2020, 94, 735-746.	2.0	6
82	Roots alter soil microbial diversity and interkingdom interactions in diversified agricultural landscapes. Oikos, 2023, 2023, .	2.7	6
83	Effect of long-term plant biomass management on phosphatase-producing bacterial populations in soils under temperate grassland. Applied Soil Ecology, 2020, 151, 103583.	4.3	5
84	Impacts of landâ€use changes on the variability of microbiomes in soil profiles. Journal of the Science of Food and Agriculture, 2021, 101, 5056-5066.	3.5	5
85	Identifying hotspots and representative monitoring locations of field scale N2O emissions from agricultural soils: A time stability analysis. Science of the Total Environment, 2021, 788, 147955.	8.0	5
86	Roundup ReadyÃ‚Â®soybean gene concentrations in field soil aggregate size classes. FEMS Microbiology Letters, 2009, 291, 175-179.	1.8	3
87	Soil phosphorus bioavailability as influenced by long-term management and applied phosphorus source. Canadian Journal of Soil Science, 2019, 99, 292-304.	1.2	3
88	Does overwintering change the inoculum effect on methane emissions from stored liquid manure?. Journal of Environmental Quality, 2020, 49, 247-255.	2.0	3
89	Seasonal agricultural wetlands act as potential source of N2O and CH4 emissions. Catena, 2022, 213, 106184.	5.0	3
90	Tillage management exerts stronger controls on soil microbial community structure and organic matter molecular composition than N fertilization. Agriculture, Ecosystems and Environment, 2022, 336, 108028.	5.3	3

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91	Identification of degrader bacteria and fungi enriched in rhizosphere soil from a toluene phytoremediation site using DNA stable isotope probing. International Journal of Phytoremediation, 2021, 23, 846-856.	3.1	2
92	Response Curves for Ammonia and Methane Emissions From Stored Liquid Manure Receiving Low Rates of Sulfuric Acid. Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	2
93	The biological sink of atmospheric H2 is more sensitive to spatial variation of microbial diversity than N2O and CO2 emissions in a winter cover crop field trial. Science of the Total Environment, 2022, 821, 153420.	8.0	2
94	2017 CSM Murray Award for Career Achievement. Canadian Journal of Microbiology, 2021, 67, v-v.	1.7	0