Gary D Bending

List of Publications by Year
in descending order

103 papers	7,401 citations	47006 47 h-index	56724 83 g-index
110 all docs	110 docs citations	110 times ranked	8478 citing authors

#	Article	IF	Citations
1	Meeting the demand for crop production: the challenge of yield decline in crops grown in short rotations. Biological Reviews, 2012, 87, 52-71.	10.4	342
2	Microbial and biochemical soil quality indicators and their potential for differentiating areas under contrasting agricultural management regimes. Soil Biology and Biochemistry, 2004, 36, 1785-1792.	8.8	311
3	Interactions between crop residue and soil organic matter quality and the functional diversity of soil microbial communities. Soil Biology and Biochemistry, 2002, 34, 1073-1082.	8.8	288
4	The structure and function of the vegetative mycelium of ectomycorrhizal plants. V. Foraging behaviour and translocation of nutrients from exploited litter. New Phytologist, 1995, 130, 401-409.	7.3	282
5	The role of local environment and geographical distance in determining community composition of arbuscular mycorrhizal fungi at the landscape scale. ISME Journal, 2013, 7, 498-508.	9.8	242
6	Development of novel assays for lignin degradation: comparative analysis of bacterial and fungal lignin degraders. Molecular BioSystems, 2010, 6, 815.	2.9	238
7	Impact of biochar on mineralisation of C and N from soil and willow litter and its relationship with microbial community biomass and structure. Biology and Fertility of Soils, 2014, 50, 695-702.	4.3	216
8	Degradation of contrasting pesticides by white rot fungi and its relationship with ligninolytic potential. FEMS Microbiology Letters, 2002, 212, 59-63.	1.8	190
9	Microbial degradation of isoproturon and related phenylurea herbicides in and below agricultural fields. FEMS Microbiology Ecology, 2003, 45, 1-11.	2.7	189
10	Nitrogen mobilization from protein-polyphenol complex by ericoid and ectomycorrhizal fungi. Soil Biology and Biochemistry, 1996, 28, 1603-1612.	8.8	187
11	Fungicide impacts on microbial communities in soils with contrasting management histories. Chemosphere, 2007, 69, 82-88.	8.2	183
12	Contrasting arbuscular mycorrhizal communities colonizing different host plants show a similar response to a soil phosphorus concentration gradient. New Phytologist, 2013, 198, 546-556.	7.3	183
13	Lignin and soluble phenolic degradation by ectomycorrhizal and ericoid mycorrhizal fungi. Mycological Research, 1997, 101, 1348-1354.	2.5	181
14	Both Leaf Properties and Microbe-Microbe Interactions Influence Within-Species Variation in Bacterial Population Diversity and Structure in the Lettuce (<i>Lactuca</i> Species) Phyllosphere. Applied and Environmental Microbiology, 2010, 76, 8117-8125.	3.1	176
15	Bacteria associated with Pinus sylvestris â€" Lactarius rufus ectomycorrhizas and their effects on mycorrhiza formation in vitro. New Phytologist, 2001, 151, 743-751.	7.3	160
16	Spatial variation in the degradation rate of the pesticides isoproturon, azoxystrobin and diflufenican in soil and its relationship with chemical and microbial properties. Environmental Pollution, 2006, 139, 279-287.	7.5	144
17	Inhibition of soil nitrifying bacteria communities and their activities by glucosinolate hydrolysis products. Soil Biology and Biochemistry, 2000, 32, 1261-1269.	8.8	141
18	In-Field Spatial Variability in the Degradation of the Phenyl-Urea Herbicide Isoproturon Is the Result of Interactions between Degradative Sphingomonas spp. and Soil pH. Applied and Environmental Microbiology, 2003, 69, 827-834.	3.1	141

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19	Characterisation of volatile sulphur-containing compounds produced during decomposition of Brassica juncea tissues in soil. Soil Biology and Biochemistry, 1999, 31, 695-703.	8.8	131
20	Root traits and microbial community interactions in relation to phosphorus availability and acquisition, with particular reference to Brassica. Frontiers in Plant Science, 2014, 5, 27.	3.6	111
21	The structure and function of the vegetative mycelium of ectomycorrhizal plants. VI. Activities of nutrient mobilizing enzymes in birch litter colonized by Paxillus involutus (Fr.) Fr.. New Phytologist, 1995, 130, 411-417.	7.3	110
22	Impact of black carbon on the bioaccessibility of organic contaminants in soil. Journal of Hazardous Materials, 2013, 261, 808-816.	12.4	105
23	Fine endophytes (<i>Glomus tenue</i>) are related to Mucoromycotina, not Glomeromycota. New Phytologist, 2017, 213, 481-486.	7.3	101
24	Assessing the chemical and biological accessibility of the herbicide isoproturon in soil amended with biochar. Chemosphere, 2012, 88, 77-83.	8.2	99
25	Impact of Shortened Crop Rotation of Oilseed Rape on Soil and Rhizosphere Microbial Diversity in Relation to Yield Decline. PLoS ONE, 2013, 8, e59859.	2.5	95
26	Comparative genomic, proteomic and exoproteomic analyses of three <i>Pseudomonas</i> strains reveals novel insights into the phosphorus scavenging capabilities of soil bacteria. Environmental Microbiology, 2016, 18, 3535-3549.	3.8	95
27	Effects of the soluble polyphenol tannic acid on the activities of ericoid and ectomycorrhizal fungi. Soil Biology and Biochemistry, 1996, 28, 1595-1602.	8.8	94
28	Spatial scaling of arbuscular mycorrhizal fungal diversity is affected by farming practice. Environmental Microbiology, 2011, 13, 241-249.	3.8	93
29	Field-scale study of the variability in pesticide biodegradation with soil depth and its relationship with soil characteristics. Soil Biology and Biochemistry, 2006, 38, 2910-2918.	8.8	92
30	Fate of nitrogen from crop residues as affected by biochemical quality and the microbial biomass. Soil Biology and Biochemistry, 1998, 30, 2055-2065.	8.8	87
31	What are the primary factors controlling the light fraction and particulate soil organic matter content of agricultural soils?. Biology and Fertility of Soils, 2013, 49, 1001-1014.	4.3	86
32	Abiotic and Biotic Processes Governing the Fate of Phenylurea Herbicides in Soils: A Review. Critical Reviews in Environmental Science and Technology, 2015, 45, 1947-1998.	12.8	77
33	Urban meadows as an alternative to short mown grassland: effects of composition and height on biodiversity. Ecological Applications, 2019, 29, e01946.	3.8	76
34	Niche-adaptation in plant-associated <i>Bacteroidetes</i> favours specialisation in organic phosphorus mineralisation. ISME Journal, 2021, 15, 1040-1055.	9.8	74
35	Characterisation of bacteria from Pinus sylvestrisÃ¢Â€Â“Suillus luteus mycorrhizas and their effects on rootÃ¢Â€Â“fungus interactions and plant growth. FEMS Microbiology Ecology, 2002, 39, 219-227.	2.7	69
36	Longâ€read metabarcoding of the eukaryotic rDNA operon to phylogenetically and taxonomically resolve environmental diversity. Molecular Ecology Resources, 2020, 20, 429-443.	4.8	68

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37	Mycorrhizas and biomass crops: opportunities for future sustainable development. Trends in Plant Science, 2009, 14, 542-549.	8.8	65
38	Partial maintenance of organ-specific epigenetic marks during plant asexual reproduction leads to heritable phenotypic variation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9145-E9152.	7.1	65
39	Technical considerations for the use of15N-DNA stable-isotope probing for functional microbial activity in soils. Rapid Communications in Mass Spectrometry, 2005, 19, 1424-1428.	1.5	64
40	Evidence for functional redundancy in arbuscular mycorrhizal fungi and implications for agroecosystem management. Mycorrhiza, 2016, 26, 77-83.	2.8	62
41	Extreme rainfall affects assembly of the rootâ€associated fungal community. New Phytologist, 2018, 220, 1172-1184.	7.3	60
42	Spatial heterogeneity in the metabolism and dynamics of isoproturon degrading microbial communities in soil. Biology and Fertility of Soils, 2001, 33, 484-489.	4.3	58
43	Identification of active bacteria involved in decomposition of complex maize and soybean residues in a tropical Vertisol using 15N-DNA stable isotope probing. Pedobiologia, 2011, 54, 187-193.	1.2	57
44	Long-term effect of tillage systems on soil microbiological, chemical and physical parameters and the incidence of charcoal rot by Macrophomina phaseolina (Tassi) Goid in soybean. Crop Protection, 2012, 40, 73-82.	2.1	56
45	Changes in activity and structure of the soil microbial community after application of azoxystrobin or pirimicarb and an organic amendment to an agricultural soil. Applied Soil Ecology, 2016, 106, 47-57.	4.3	56
46	Microbial aspects of the interaction between soil depth and biodegradation of the herbicide isoproturon. Chemosphere, 2007, 66, 664-671.	8.2	50
47	Mycorrhization helper bacteria: a case of specificity for altering ectomycorrhiza architecture but not ectomycorrhiza formation. Mycorrhiza, 2006, 16, 533-541.	2.8	48
48	Organic management of tilled agricultural soils results in a rapid increase in colonisation potential and spore populations of arbuscular mycorrhizal fungi. Agriculture, Ecosystems and Environment, 2010, 139, 273-279.	5.3	48
49	Chapter 7 Human Pathogens and the Phyllosphere. Advances in Applied Microbiology, 2008, 64, 183-221.	2.4	47
50	Distribution and diversity of Paraglomus spp. in tilled agricultural soils. Mycorrhiza, 2014, 24, 1-11.	2.8	47
51	Cultivar-level genotype differences influence diversity and composition of lettuce (Lactuca sp.) phyllosphere fungal communities. Fungal Ecology, 2015, 17, 183-186.	1.6	46
52	Longitudinal dispersion of microplastics in aquatic flows using fluorometric techniques. Water Research, 2020, 170, 115337.	11.3	45
53	Litter decomposition, ectomycorrhizal roots and the 'Gadgil' effect. New Phytologist, 2003, 158, 228-229.	7.3	44
54	Impacts of biochar on bioavailability of the fungicide azoxystrobin: A comparison of the effect on biodegradation rate and toxicity to the fungal community. Chemosphere, 2013, 91, 1525-1533.	8.2	44

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55	Isolation and characterisation of azoxystrobin degrading bacteria from soil. Chemosphere, 2014, 95, 370-378.	8.2	43
56	Preceding crop and seasonal effects influence fungal, bacterial and nematode diversity in wheat and oilseed rape rhizosphere and soil. Applied Soil Ecology, 2018, 126, 34-46.	4.3	43
57	Importance of mycorrhization helper bacteria cell density and metabolite localization for the Pinus sylvestrisÃ¢Â€Â“Lactarius rufus symbiosis. FEMS Microbiology Ecology, 2006, 56, 25-33.	2.7	40
58	Significance of Microbial Interactions in the Mycorrhizosphere. Advances in Applied Microbiology, 2006, 60, 97-132.	2.4	40
59	Diversity of fungi associated with hair roots of ericaceous plants is affected by land use. FEMS Microbiology Ecology, 2014, 87, 586-600.	2.7	36
60	Temporally Variable Geographical Distance Effects Contribute to the Assembly of Root-Associated Fungal Communities. Frontiers in Microbiology, 2016, 7, 195.	3.5	36
61	The â€˜knownâ€™ genetic potential for microbial communities to degrade organic phosphorus is reduced in lowâ€pH soils. MicrobiologyOpen, 2017, 6, e00474.	3.0	34
62	Assessing the effect of organic residue quality on active decomposing fungi in a tropical Vertisol using 15N-DNA stable isotope probing. Fungal Ecology, 2011, 4, 115-119.	1.6	33
63	Characterization of <i>para</i> -Nitrophenol-Degrading Bacterial Communities in River Water by Using Functional Markers and Stable Isotope Probing. Applied and Environmental Microbiology, 2015, 81, 6890-6900.	3.1	33
64	Cross-taxa congruence, indicators and environmental gradients in soils under agricultural and extensive land management. European Journal of Soil Biology, 2012, 49, 55-62.	3.2	32
65	Identification of microbial signatures linked to oilseed rape yield decline at the landscape scale. Microbiome, 2021, 9, 19.	11.1	31
66	Identification of extracellular glycerophosphodiesterases in Pseudomonas and their role in soil organic phosphorus remineralisation. Scientific Reports, 2017, 7, 2179.	3.3	30
67	The effect of crop sequences on soil microbial, chemical and physical indicators and its relationship with soybean sudden death syndrome (complex of Fusarium species). Spanish Journal of Agricultural Research, 2014, 12, 252.	0.6	29
68	Changes to the structure ofSphingomonasspp. communities associated with biodegradation of the herbicide isoproturon in soil. FEMS Microbiology Letters, 2007, 269, 110-116.	1.8	28
69	Growth and nutritional responses to arbuscular mycorrhizal fungi are dependent on onion genotype and fungal species. Biology and Fertility of Soils, 2015, 51, 801-813.	4.3	27
70	Converting highly productive arable cropland in Europe to grassland: â€“a poor candidate for carbon sequestration. Scientific Reports, 2017, 7, 10493.	3.3	27
71	Biodegradation of the herbicide mecoprop-p with soil depth and its relationship with class III tfdA genes. Soil Biology and Biochemistry, 2010, 42, 32-39.	8.8	26
72	Light Structures Phototroph, Bacterial and Fungal Communities at the Soil Surface. PLoS ONE, 2013, 8, e69048.	2.5	24

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73	Building soil sustainability from rootâ€“soil interface traits. Trends in Plant Science, 2022, 27, 688-698.	8.8	24
74	Spatio-Temporal Variation of Core and Satellite Arbuscular Mycorrhizal Fungus Communities in Miscanthus giganteus. Frontiers in Microbiology, 2016, 7, 1278.	3.5	23
75	Bedform characteristics and biofilm community development interact to modify hyporheic exchange. Science of the Total Environment, 2020, 749, 141397.	8.0	23
76	Impact of fresh root material and mature crop residues of oilseed rape (Brassica napus) on microbial communities associated with subsequent oilseed rape. Biology and Fertility of Soils, 2014, 50, 1267-1279.	4.3	22
77	Transporter characterisation reveals aminoethylphosphonate mineralisation as a key step in the marine phosphorus redox cycle. Nature Communications, 2021, 12, 4554.	12.8	21
78	Evaluation of riceâ€“legumeâ€“rice cropping system on grain yield, nutrient uptake, nitrogen fixation, and chemical, physical, and biological properties of soil. Biology and Fertility of Soils, 2009, 45, 237-251.	4.3	20
79	Resistance and resilience responses of a range of soil eukaryote and bacterial taxa to fungicide application. Chemosphere, 2014, 112, 194-202.	8.2	20
80	Agricultural landâ€use favours Mucoromycotinian, but not Glomeromycotinian, arbuscular mycorrhizal fungi across ten biomes. New Phytologist, 2022, 233, 1369-1382.	7.3	19
81	Study of the spatial variation of the biodegradation rate of the herbicide bentazone with soil depth using contrasting incubation methods. Chemosphere, 2008, 73, 1211-1215.	8.2	18
82	Functional differences in the microbial processing of recent assimilates under two contrasting perennial bioenergy plantations. Soil Biology and Biochemistry, 2017, 114, 248-262.	8.8	17
83	Evidence for Niche Differentiation in the Environmental Responses of Co-occurring Mucoromycotinian Fine Root Endophytes and Glomeromycotinian Arbuscular Mycorrhizal Fungi. Microbial Ecology, 2021, 81, 864-873.	2.8	17
84	A Novel Signaling Pathway Required for Arabidopsis Endodermal Root Organization Shapes the Rhizosphere Microbiome. Plant and Cell Physiology, 2021, 62, 248-261.	3.1	17
85	Temporal variation outweighs effects of biosolids applications in shaping arbuscular mycorrhizal fungi communities on plants grown in pasture and arable soils. Applied Soil Ecology, 2014, 82, 52-60.	4.3	16
86	First Cryo-Scanning Electron Microscopy Images and X-Ray Microanalyses of Mucoromycotinian Fine Root Endophytes in Vascular Plants. Frontiers in Microbiology, 2020, 11, 2018.	3.5	16
87	What are the mechanisms and specificity of mycorrhization helper bacteria?. New Phytologist, 2007, 174, 707-710.	7.3	15
88	Inclusion of seasonal variation in river system microbial communities and phototroph activity increases environmental relevance of laboratory chemical persistence tests. Science of the Total Environment, 2020, 733, 139070.	8.0	10
89	Incorporation of nitrogen from crop residues into light-fraction organic matter in soils with contrasting management histories. Biology and Fertility of Soils, 2009, 45, 281-287.	4.3	9
90	An empirical model approach for assessing soil organic carbon stock changes following biomass crop establishment in Britain. Biomass and Bioenergy, 2015, 83, 141-151.	5.7	9

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91	Contrasting Responses of Rhizosphere Bacterial, Fungal, Protist, and Nematode Communities to Nitrogen Fertilization and Crop Genotype in Field Grown Oilseed Rape (Brassica napus). Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	8
92	Plant Rhizosphere Selection of Plasmodiophorid Lineages from Bulk Soil: The Importance of â€œHiddenâ€• Diversity. Frontiers in Microbiology, 2018, 9, 168.	3.5	7
93	Diversity and Ecological Guild Analysis of the Oil Palm Fungal Microbiome Across Root, Rhizosphere, and Soil Compartments. Frontiers in Microbiology, 2022, 13, 792928.	3.5	7
94	Stimulation of Distinct Rhizosphere Bacteria Drives Phosphorus and Nitrogen Mineralization in Oilseed Rape under Field Conditions. MSystems, 2022, 7, .	3.8	7
95	Non-UV Light Influences the Degradation Rate of Crop Protection Products. Environmental Science & Technology, 2013, 47, 130712083104003.	10.0	5
96	Spatial and temporal variability in the potential of river water biofilms to degrade p-nitrophenol. Chemosphere, 2016, 164, 355-362.	8.2	5
97	Tree phyllospheres are a habitat for diverse populations of <scp>CO</scp>â€oxidizing bacteria. Environmental Microbiology, 2021, 23, 6309-6327.	3.8	5
98	The priming potential of environmentally weathered pyrogenic carbon during landâ€use transition to biomass crop production. GCB Bioenergy, 2016, 8, 805-817.	5.6	4
99	Degradation of contrasting pesticides by white rot fungi and its relationship with ligninolytic potential. FEMS Microbiology Letters, 2002, 212, 59-63.	1.8	4
100	2â€Aminoethylphosphonate utilization in <i>Pseudomonas putida</i>â€‰<scp>BIRD</scp>â€1 is controlled by multiple master regulators. Environmental Microbiology, 2022, 24, 1902-1917.	3.8	4
101	Relationships between yield, rotation length, and abundance of Olpidium brassicae and Pyrenochaeta sp. in the rhizosphere of oilseed rape. Applied Soil Ecology, 2020, 147, 103433.	4.3	3
102	Natural attenuation of legacy hydrocarbon spills in pristine soils is feasible despite difficult environmental conditions in the monsoon tropics. Science of the Total Environment, 2021, 799, 149335.	8.0	3
103	Two Receptor-Like Kinases Required for Arabidopsis Endodermal Root Organisation Shape the Rhizosphere Microbiome. SSRN Electronic Journal, 0, , .	0.4	2