

Gerlinde Barbra De Deyn

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

10,390
citations

66343

42
h-index

40979

93
g-index

104
all docs

104
docs citations

104
times ranked

10908
citing authors

#	ARTICLE	IF	CITATIONS
1	Soil microbiota as game-changers in restoration of degraded lands. <i>Science</i> , 2022, 375, abe0725.	12.6	216
2	Root traits as drivers of plant and ecosystem functioning: current understanding, pitfalls and future research needs. <i>New Phytologist</i> , 2021, 232, 1123-1158.	7.3	277
3	Litter quality drives nitrogen release, and agricultural management (organic vs. conventional) drives carbon loss during litter decomposition in agro-ecosystems. <i>Soil Biology and Biochemistry</i> , 2021, 153, 108115.	8.8	25
4	Resistanceâ€“recovery tradeâ€“off of soil microbial communities under altered rain regimes: An experimental test across European agroecosystems. <i>Journal of Applied Ecology</i> , 2021, 58, 406-418.	4.0	14
5	Manipulating plant community composition to steer efficient Nâ€“cycling in intensively managed grasslands. <i>Journal of Applied Ecology</i> , 2021, 58, 167-180.	4.0	14
6	Effects of plant community history, soil legacy and plant diversity on soil microbial communities. <i>Journal of Ecology</i> , 2021, 109, 3007-3023.	4.0	39
7	Above- and belowground biodiversity jointly tighten the P cycle in agricultural grasslands. <i>Nature Communications</i> , 2021, 12, 4431.	12.8	40
8	Plant traits of grass and legume species for flood resilience and N ₂ O mitigation. <i>Functional Ecology</i> , 2021, 35, 2205-2218.	3.6	6
9	The role of soils in habitat creation, maintenance and restoration. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200170.	4.0	23
10	Soil-derived Nature's Contributions to People and their contribution to the UN Sustainable Development Goals. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200185.	4.0	15
11	Severance of arbuscular mycorrhizal fungal mycelial networks in restoration grasslands enhances seedling biomass. <i>New Phytologist</i> , 2021, 232, 753-761.	7.3	3
12	Silicon application and plant growth promoting rhizobacteria consisting of six pure <i>Bacillus</i> species alleviate salinity stress in cucumber (<i>Cucumis sativus</i> L.). <i>Scientia Horticulturae</i> , 2021, 288, 110383.	3.6	25
13	Leachates from plants recently infected by root-feeding nematodes cause increased biomass allocation to roots in neighbouring plants. <i>Scientific Reports</i> , 2021, 11, 2347.	3.3	2
14	Soil fauna diversity increases CO ₂ but suppresses N ₂ O emissions from soil. <i>Global Change Biology</i> , 2020, 26, 1886-1898.	9.5	28
15	Belowground plant-plant signaling of root infection by nematodes. <i>Pedobiologia</i> , 2020, 83, 150688.	1.2	5
16	Crops and their wild progenitors recruit beneficial and detrimental soil biota in opposing ways. <i>Plant and Soil</i> , 2020, 456, 159-173.	3.7	13
17	Plant community flood resilience in intensively managed grasslands and the role of the plant economic spectrum. <i>Journal of Applied Ecology</i> , 2020, 57, 1524-1534.	4.0	13
18	Disentangling drivers of soil microbial potential enzyme activity across rain regimes: An approach based on the functional trait framework. <i>Soil Biology and Biochemistry</i> , 2020, 148, 107881.	8.8	13

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19	Biodiversity increases multitrophic energy use efficiency, flow and storage in grasslands. <i>Nature Ecology and Evolution</i> , 2020, 4, 393-405.	7.8	45
20	Increased arbuscular mycorrhizal fungal colonization reduces yield loss of rice (<i>Oryza sativa</i> L.) under drought. <i>Mycorrhiza</i> , 2020, 30, 315-328.	2.8	60
21	Is litter decomposition enhanced in species mixtures? A meta-analysis. <i>Soil Biology and Biochemistry</i> , 2020, 145, 107791.	8.8	57
22	Can flooding-induced greenhouse gas emissions be mitigated by trait-based plant species choice?. <i>Science of the Total Environment</i> , 2020, 727, 138476.	8.0	12
23	Winter cover crop legacy effects on litter decomposition act through litter quality and microbial community changes. <i>Journal of Applied Ecology</i> , 2019, 56, 132-143.	4.0	45
24	Plant trait-based approaches to improve nitrogen cycling in agroecosystems. <i>Journal of Applied Ecology</i> , 2019, 56, 2454-2466.	4.0	36
25	Transferring biodiversity-ecosystem function research to the management of "real-world" ecosystems. <i>Advances in Ecological Research</i> , 2019, 61, 323-356.	2.7	51
26	Using Unmanned Aerial Systems (UAS) and Object-Based Image Analysis (OBIA) for Measuring Plant-Soil Feedback Effects on Crop Productivity. <i>Drones</i> , 2019, 3, 54.	4.9	12
27	Applying the Aboveground-Belowground Interaction Concept in Agriculture: Spatio-Temporal Scales Matter. <i>Frontiers in Ecology and Evolution</i> , 2019, 7, .	2.2	20
28	Separating effects of soil microorganisms and nematodes on plant community dynamics. <i>Plant and Soil</i> , 2019, 441, 455-467.	3.7	16
29	Plant presence reduces root and shoot litter decomposition rates of crops and wild relatives. <i>Plant and Soil</i> , 2019, 438, 313-327.	3.7	14
30	Feedbacks of plant identity and diversity on the diversity and community composition of rhizosphere microbiomes from a long-term biodiversity experiment. <i>Molecular Ecology</i> , 2019, 28, 863-878.	3.9	39
31	Cascading spatial and trophic impacts of oak decline on the soil food web. <i>Journal of Ecology</i> , 2019, 107, 1199-1214.	4.0	15
32	The Future of Complementarity: Disentangling Causes from Consequences. <i>Trends in Ecology and Evolution</i> , 2019, 34, 167-180.	8.7	246
33	What root traits determine grass resistance to phosphorus deficiency in production grassland?. <i>Journal of Plant Nutrition and Soil Science</i> , 2018, 181, 323-335.	1.9	16
34	Soil microbes promote complementarity effects among coexisting trees through soil nitrogen partitioning. <i>Functional Ecology</i> , 2018, 32, 1879-1889.	3.6	31
35	Soil quality " A critical review. <i>Soil Biology and Biochemistry</i> , 2018, 120, 105-125.	8.8	1,441
36	Crop traits drive soil carbon sequestration under organic farming. <i>Journal of Applied Ecology</i> , 2018, 55, 2496-2505.	4.0	30

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37	Red clover varieties of Mattenkleee type have higher production, protein yield and persistence than Ackerkleee types in grass-clover mixtures. <i>Grass and Forage Science</i> , 2018, 73, 297-308.	2.9	21
38	20 years after View from the Park: advance ecology and avoid editorial rejection in <i>Oikos</i> . <i>Oikos</i> , 2018, 127, 1-4.	2.7	0
39	Organic management and cover crop species steer soil microbial community structure and functionality along with soil organic matter properties. <i>Agriculture, Ecosystems and Environment</i> , 2018, 263, 7-17.	5.3	115
40	Legacy effects of diversity in space and time driven by winter cover crop biomass and nitrogen concentration. <i>Journal of Applied Ecology</i> , 2018, 55, 299-310.	4.0	40
41	What plant functional traits can reduce nitrous oxide emissions from intensively managed grasslands?. <i>Global Change Biology</i> , 2018, 24, e248-e258.	9.5	67
42	Plant-Soil Feedback: Bridging Natural and Agricultural Sciences. <i>Trends in Ecology and Evolution</i> , 2018, 33, 129-142.	8.7	249
43	Community evolution increases plant productivity at low diversity. <i>Ecology Letters</i> , 2018, 21, 128-137.	6.4	67
44	Spatial heterogeneity in root litter and soil legacies differentially affect legume root traits. <i>Plant and Soil</i> , 2018, 428, 253-264.	3.7	2
45	Differential responses of soil bacteria, fungi, archaea and protists to plant species richness and plant functional group identity. <i>Molecular Ecology</i> , 2017, 26, 4085-4098.	3.9	173
46	Symbiotic soil fungi enhance ecosystem resilience to climate change. <i>Global Change Biology</i> , 2017, 23, 5228-5236.	9.5	63
47	Possible mechanisms underlying abundance and diversity responses of nematode communities to plant diversity. <i>Ecosphere</i> , 2017, 8, e01719.	2.2	52
48	Soil biota suppress positive plant diversity effects on productivity at high but not low soil fertility. <i>Journal of Ecology</i> , 2017, 105, 1766-1774.	4.0	23
49	Plant life history and above-belowground interactions: missing links. <i>Oikos</i> , 2017, 126, 497-507.	2.7	35
50	Remote sensing of plant trait responses to field-based plant-soil feedback using UAV-based optical sensors. <i>Biogeosciences</i> , 2017, 14, 733-749.	3.3	32
51	Organic farming enhances soil microbial abundance and activity-A meta-analysis and meta-regression. <i>PLoS ONE</i> , 2017, 12, e0180442.	2.5	329
52	Plant selection and soil legacy enhance long-term biodiversity effects. <i>Ecology</i> , 2016, 97, 918-928.	3.2	36
53	Soil fauna: key to new carbon models. <i>Soil</i> , 2016, 2, 565-582.	4.9	149
54	Ecological networks: assembly and consequences. <i>Oikos</i> , 2016, 125, 443-445.	2.7	5

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55	Plant selection and soil legacy enhance long-term biodiversity effects. <i>Ecology</i> , 2016, 97, 918.	3.2	3
56	Plant "soil feedbacks: role of plant functional group and plant traits. <i>Journal of Ecology</i> , 2016, 104, 1608-1617.	4.0	213
57	Plant diversity and root traits benefit physical properties key to soil function in grasslands. <i>Ecology Letters</i> , 2016, 19, 1140-1149.	6.4	211
58	Dirt poor. <i>Chemistry and Industry (London)</i> , 2016, 80, 26-29.	0.0	0
59	Exploring the relationship between soil mesofauna, soil structure and N ₂ O emissions. <i>Soil Biology and Biochemistry</i> , 2016, 96, 55-64.	8.8	41
60	Legume presence reduces the decomposition rate of non-legume roots. <i>Soil Biology and Biochemistry</i> , 2016, 94, 88-93.	8.8	22
61	Plant selection and soil legacy enhance long-term biodiversity effects. <i>Ecology</i> , 2016, 97, 918-28.	3.2	15
62	Plant diversity and identity effects on predatory nematodes and their prey. <i>Ecology and Evolution</i> , 2015, 5, 836-847.	1.9	23
63	Plant species richness leaves a legacy of enhanced root litter-induced decomposition in soil. <i>Soil Biology and Biochemistry</i> , 2015, 80, 341-348.	8.8	42
64	Towards an Integration of Biodiversity "Ecosystem Functioning and Food Web Theory to Evaluate Relationships between Multiple Ecosystem Services. <i>Advances in Ecological Research</i> , 2015, , 161-199.	2.7	87
65	Plant species identity surpasses species richness as a key driver of N ₂ O emissions from grassland. <i>Global Change Biology</i> , 2014, 20, 265-275.	9.5	100
66	Interactions between microbial-feeding and predatory soil fauna trigger N ₂ O emissions. <i>Soil Biology and Biochemistry</i> , 2014, 70, 256-262.	8.8	29
67	Selection for niche differentiation in plant communities increases biodiversity effects. <i>Nature</i> , 2014, 515, 108-111.	27.8	313
68	Plant species richness promotes soil carbon and nitrogen stocks in grasslands without legumes. <i>Journal of Ecology</i> , 2014, 102, 1163-1170.	4.0	220
69	Earthworms increase plant production: a meta-analysis. <i>Scientific Reports</i> , 2014, 4, 6365.	3.3	381
70	Soil and Freshwater and Marine Sediment Food Webs: Their Structure and Function. <i>BioScience</i> , 2013, 63, 35-42.	4.9	34
71	Soil invertebrate fauna affect N ₂ O emissions from soil. <i>Global Change Biology</i> , 2013, 19, 2814-2825.	9.5	54
72	Effects of plant species identity, diversity and soil fertility on biodegradation of phenanthrene in soil. <i>Environmental Pollution</i> , 2013, 173, 231-237.	7.5	17

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73	Soil biotic legacy effects of extreme weather events influence plant invasiveness. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9835-9838.	7.1	125
74	Biotic plant-soil feedbacks across temporal scales. Journal of Ecology, 2013, 101, 309-315.	4.0	184
75	Ecosystem Carbon and Soil Biodiversity. , 2013, , 131-153.		2
76	Ecosystem services: a useful concept for soil policy making!. Current Opinion in Environmental Sustainability, 2012, 4, 578-585.	6.3	63
77	Increased Plant Carbon Translocation Linked to Overyielding in Grassland Species Mixtures. PLoS ONE, 2012, 7, e45926.	2.5	18
78	The curse of the black box. Plant and Soil, 2012, 350, 27-33.	3.7	33
79	Soil Biodiversity and Functions. , 2012, , 28-44.		41
80	Biogeography and Phylogenetic Community Structure of Soil Invertebrate Ecosystem Engineers: Global to Local Patterns, Implications for Ecosystem Functioning and Services and Global Environmental Change Impacts. , 2012, , 201-232.		31
81	Plant species richness, identity and productivity differentially influence key groups of microbes in grassland soils of contrasting fertility. Biology Letters, 2011, 7, 75-78.	2.3	129
82	Rapid transfer of photosynthetic carbon through the plant-soil system in differently managed species-rich grasslands. Biogeosciences, 2011, 8, 1131-1139.	3.3	95
83	Additional carbon sequestration benefits of grassland diversity restoration. Journal of Applied Ecology, 2011, 48, 600-608.	4.0	145
84	Enhancement of Late Successional Plants on Ex-Arable Land by Soil Inoculations. PLoS ONE, 2011, 6, e21943.	2.5	52
85	Chemical defense, mycorrhizal colonization and growth responses in <i>Plantago lanceolata</i> L.. Oecologia, 2009, 160, 433-442.	2.0	60
86	Vegetation composition promotes carbon and nitrogen storage in model grassland communities of contrasting soil fertility. Journal of Ecology, 2009, 97, 864-875.	4.0	134
87	Plant-soil interactions and the carbon cycle. Journal of Ecology, 2009, 97, 838-839.	4.0	26
88	Plant functional traits and soil carbon sequestration in contrasting biomes. Ecology Letters, 2008, 11, 516-531.	6.4	1,101
89	Above- and belowground insect herbivores differentially affect soil nematode communities in species-rich plant communities. Oikos, 2007, 116, 923-930.	2.7	37
90	Soil community composition drives aboveground plant-herbivore-parasitoid interactions. Ecology Letters, 2005, 8, 652-661.	6.4	198

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91	Linking aboveground and belowground diversity. <i>Trends in Ecology and Evolution</i> , 2005, 20, 625-633.	8.7	359
92	Interactions between spatially separated herbivores indirectly alter plant diversity. <i>Ecology Letters</i> , 2004, 8, 30-37.	6.4	46
93	Plant community development is affected by nutrients and soil biota. <i>Journal of Ecology</i> , 2004, 92, 824-834.	4.0	200
94	Plant species identity and diversity effects on different trophic levels of nematodes in the soil food web. <i>Oikos</i> , 2004, 106, 576-586.	2.7	356
95	Trophic interactions in a changing world: modelling abovegroundâ€“belowground interactions. <i>Basic and Applied Ecology</i> , 2004, 5, 515-528.	2.7	42
96	Diversity reduces invasibility in experimental plant communities: the role of plant species. <i>Ecology Letters</i> , 2003, 6, 910-918.	6.4	180
97	Soil invertebrate fauna enhances grassland succession and diversity. <i>Nature</i> , 2003, 422, 711-713.	27.8	501
98	Scanning electron microscopical observations on the coastal marine nematode <i>Epsilonema pustulatum</i> (Gerlach, 1952) Lorenzen, 1973 (Nematoda: Epsilonematidae). <i>Nematology</i> , 2000, 2, 685-693.	0.6	1