Johannes Rousk

List of Publications by Year
in descending order

108 papers	13,844 citations	41258 49 h-index	24179 110 g-index
134 all docs	134 docs citations	134 times ranked	12547 citing authors

#	Article	IF	Citations
1	Increased Above- and Belowground Plant Input Can Both Trigger Microbial Nitrogen Mining in Subarctic Tundra Soils. Ecosystems, 2022, 25, 105-121.	1.6	8
2	Will a legacy of enhanced resource availability accelerate the soil microbial response to future climate change?. Soil Biology and Biochemistry, 2022, 165, 108492.	4.2	4
3	Toward a functionâ€first framework to make soil microbial ecology predictive. Ecology, 2022, 103, e03594.	1.5	19
4	Microbial resilience to drying-rewetting is partly driven by selection for quick colonizers. Soil Biology and Biochemistry, 2022, 167, 108581.	4.2	16
5	Testing the environmental controls of microbial nitrogen-mining induced by semi-continuous labile carbon additions in the subarctic. Soil Biology and Biochemistry, 2022, 166, 108562.	4.2	12
6	Repeated drying and rewetting cycles accelerate bacterial growth recovery after rewetting. Biology and Fertility of Soils, 2022, 58, 365-374.	2.3	17
7	Shifts in microbial stoichiometry upon nutrient addition do not capture growth-limiting nutrients for soil microorganisms in two subtropical soils. Biogeochemistry, 2022, 159, 33-43.	1.7	9
8	Do the respiration pulses induced by dryingâ€“rewetting matter for the soilâ€“atmosphere carbon balance?. Global Change Biology, 2022, 28, 3486-3488.	4.2	6
9	Using a Tropical Elevation Gradient to Evaluate the Impact of Landâ€Use Intensity and Forest Restoration on the Microbial Use of Organic Matter Under Climate Change. Global Biogeochemical Cycles, 2022, 36, .	1.9	3
10	Ecoenzymatic stoichiometry can reflect microbial resource limitation, substrate quality, or both in forest soils. Soil Biology and Biochemistry, 2022, 167, 108613.	4.2	38
11	Effects of common European tree species on soil microbial resource limitation, microbial communities and soil carbon. Soil Biology and Biochemistry, 2022, 172, 108754.	4.2	16
12	Optimal growth temperature of Arctic soil bacterial communities increases under experimental warming. Global Change Biology, 2022, 28, 6050-6064.	4.2	16
13	Drought legacy affects microbial community trait distributions related to moisture along a savannah grassland precipitation gradient. Journal of Ecology, 2021, 109, 3195-3210.	1.9	38
14	Short-term toxicity assessment of a triazine herbicide (terbutryn) underestimates the sensitivity of soil microorganisms. Soil Biology and Biochemistry, 2021, 154, 108130.	4.2	15
15	The mineralosphereâ€"interactive zone of microbial colonization and carbon use in grassland soils. Biology and Fertility of Soils, 2021, 57, 587-601.	2.3	11
16	Nutrient limitation may induce microbial mining for resources from persistent soil organic matter. Ecology, 2021, 102, e03328.	1.5	56
17	Can moisture affect temperature dependences of microbial growth and respiration?. Soil Biology and Biochemistry, 2021, 156, 108223.	4.2	51
18	Invasive plant-derived dissolved organic matter alters microbial communities and carbon cycling in soils. Soil Biology and Biochemistry, 2021, 156, 108191.	4.2	31

#	Article	IF	Citations
19	Lowâ€quality carbon and lack of nutrients result in a stronger fungal than bacterial homeâ€field advantage during the decomposition of leaf litter. Functional Ecology, 2021, 35, 1783-1796.	1.7	9
20	Evidence for large microbial-mediated losses of soil carbon under anthropogenic warming. Nature Reviews Earth & Environment, 2021, 2, 507-517.	12.2	85
21	Can heavy metal pollution induce bacterial resistance to heavy metals and antibiotics in soils from an ancient land-mine?. Journal of Hazardous Materials, 2021, 411, 124962.	6.5	23
22	The mechanisms underpinning microbial resilience to drying and rewetting â€" A model analysis. Soil Biology and Biochemistry, 2021, 162, 108400.	4.2	25
23	Higher stand densities can promote soil carbon storage after conversion of temperate mixed natural forests to larch plantations. European Journal of Forest Research, 2021, 140, 373-386.	1.1	9
24	Soil Microbial Responses to 28ÂYears of Nutrient Fertilization in a Subarctic Heath. Ecosystems, 2020, 23, 1107-1119.	1.6	14
25	Belowâ€ground responses to insect herbivory in ecosystems with woody plant canopies: A metaâ€analysis. Journal of Ecology, 2020, 108, 917-930.	1.9	29
26	Mycorrhizal association of common European tree species shapes biomass and metabolic activity of bacterial and fungal communities in soil. Soil Biology and Biochemistry, 2020, 149, 107933.	4.2	31
27	Simulated rhizosphere deposits induce microbial Nâ€mining that may accelerate shrubification in the subarctic. Ecology, 2020, 101, e03094.	1.5	25
28	The responses of moss-associated nitrogen fixation and belowground microbial community to chronic Mo and P supplements in subarctic dry heaths. Plant and Soil, 2020, 451, 261-276.	1.8	10
29	A soil microbial model to analyze decoupled microbial growth and respiration during soil drying and rewetting. Soil Biology and Biochemistry, 2020, 148, 107871.	4.2	29
30	Temperatures beyond the community optimum promote the dominance of heat-adapted, fast growing and stress resistant bacteria in alpine soils. Soil Biology and Biochemistry, 2020, 148, 107873.	4.2	52
31	The mineralosphere â€" Succession and physiology of bacteria and fungi colonising pristine minerals in grassland soils under different land-use intensities. Soil Biology and Biochemistry, 2019, 136, 107534.	4.2	36
32	Linking Microbial Community Structure to Trait Distributions and Functions Using Salinity as an Environmental Filter. MBio, 2019, 10, .	1.8	50
33	The microbial community size, structure, and process rates along natural gradients of soil salinity. Soil Biology and Biochemistry, 2019, 138, 107607.	4.2	47
34	Bacteria constrain the fungal growth response to drying-rewetting. Soil Biology and Biochemistry, 2019, 134, 108-112.	4.2	27
35	Testing the dependence of microbial growth and carbon use efficiency on nitrogen availability, pH, and organic matter quality. Soil Biology and Biochemistry, 2019, 134, 25-35.	4.2	103
36	Linking bacterial community composition to soil salinity along environmental gradients. ISME Journal, 2019, 13, 836-846.	4.4	283

#	Article	IF	Citations
37	Microbial growth and carbon use efficiency in soil: Links to fungal-bacterial dominance, SOC-quality and stoichiometry. Soil Biology and Biochemistry, 2019, 131, 195-205.	4.2	193
38	Can enzymatic stoichiometry be used to determine growth-limiting nutrients for microorganisms? - A critical assessment in two subtropical soils. Soil Biology and Biochemistry, 2019, 128, 115-126.	4.2	118
39	Soil microbial moisture dependences and responses to dryingâ€"rewetting: The legacy of 18 years drought. Global Change Biology, 2019, 25, 1005-1015.	4.2	99
40	The responses of microbial temperature relationships to seasonal change and winter warming in a temperate grassland. Global Change Biology, 2018, 24, 3357-3367.	4.2	31
41	Using pine bark and mussel shell amendments to reclaim microbial functions in a Cu polluted acid mine soil. Applied Soil Ecology, 2018, 127, 102-111.	2.1	14
42	Effects of drought legacy and tree species admixing on bacterial growth and respiration in a young forest soil upon drying and rewetting. Soil Biology and Biochemistry, 2018, 127, 148-155.	4.2	9
43	The legacy of mixed planting and precipitation reduction treatments on soil microbial activity, biomass and community composition in a young tree plantation. Soil Biology and Biochemistry, 2018, 124, 227-235.	4.2	39
44	Patchy field sampling biases understanding of climate change impacts across the Arctic. Nature Ecology and Evolution, 2018, 2, 1443-1448.	3.4	112
45	Responses of microbial tolerance to heavy metals along a century-old metal ore pollution gradient in a subarctic birch forest. Environmental Pollution, 2018, 240, 297-305.	3.7	16
46	The biogeochemical consequences of litter transformation by insect herbivory in the Subarctic: a microcosm simulation experiment. Biogeochemistry, 2018, 138, 323-336.	1.7	20
47	The impact of salinity on the microbial response to drying and rewetting in soil. Soil Biology and Biochemistry, 2017, 108, 17-26.	4.2	47
48	Using community trait-distributions to assign microbial responses to pH changes and Cd in forest soils treated with wood ash. Soil Biology and Biochemistry, 2017, 112, 153-164.	4.2	73
49	Partial drying accelerates bacterial growth recovery to rewetting. Soil Biology and Biochemistry, 2017, 112, 269-276.	4.2	81
50	Ecotoxicological assessment of propiconazole using soil bacterial and fungal growth assays. Applied Soil Ecology, 2017, 115, 27-30.	2.1	23
51	Labile carbon â€˜primesâ€™ fungal use of nitrogen from submerged leaf litter. FEMS Microbiology Ecology, 2017, 93, .	1.3	27
52	Warmer winters increase the rhizosphere carbon flow to mycorrhizal fungi more than to other microorganisms in a temperate grassland. Global Change Biology, 2017, 23, 5372-5382.	4.2	24
53	Biomass or growth? How to measure soil food webs to understand structure and function. Soil Biology and Biochemistry, 2016, 102, 45-47.	4.2	32
54	Microbial control of soil organic matter mineralization responses to labile carbon in subarctic climate change treatments. Global Change Biology, 2016, 22, 4150-4161.	4.2	121

#	Article	IF	Citations
55	Bacterial and fungal colonization and decomposition of submerged plant litter: consequences for biogenic silica dissolution. FEMS Microbiology Ecology, 2016, 92, fiw011.	1.3	17
56	Comparative Toxicities of Salts on Microbial Processes in Soil. Applied and Environmental Microbiology, 2016, 82, 2012-2020.	1.4	127
57	Functional implications of the pH-trait distribution of the microbial community in a re-inoculation experiment across a pH gradient. Soil Biology and Biochemistry, 2016, 93, 69-78.	4.2	34
58	Microbial-mediated redistribution of ecosystem nitrogen cycling can delay progressive nitrogen limitation. Biogeochemistry, 2015, 126, 11-23.	1.7	7
59	Priming of the decomposition of ageing soil organic matter: concentration dependence and microbial control. Functional Ecology, 2015, 29, 285-296.	1.7	57
60	Revisiting the hypothesis that fungalâ€toâ€bacterial dominance characterizes turnover of soil organic matter and nutrients. Ecological Monographs, 2015, 85, 457-472.	2.4	126
61	Prolonged drought changes the bacterial growth response to rewetting. Soil Biology and Biochemistry, 2015, 88, 314-322.	4.2	116
62	Salt effects on the soil microbial decomposer community and their role in organic carbon cycling: A review. Soil Biology and Biochemistry, 2015, 81, 108-123.	4.2	383
63	Microbial regulation of global biogeochemical cycles. Frontiers in Microbiology, 2014, 5, 103.	1.5	142
64	The effects of glucose loading rates on bacterial and fungal growth inÂsoil. Soil Biology and Biochemistry, 2014, 70, 88-95.	4.2	103
65	Using the concentration-dependence of respiration arising from glucose addition to estimate in situ concentrations of labile carbon in grassland soil. Soil Biology and Biochemistry, 2014, 77, 81-88.	4.2	10
66	Comparison of fertility and seasonal effects on grassland microbial communities. Soil Biology and Biochemistry, 2014, 76, 80-89.	4.2	52
67	Grazing effects on microbial community composition, growth and nutrient cycling in salt marsh and sand dune grasslands. Biology and Fertility of Soils, 2013, 49, 89-98.	2.3	38
68	Investigating the longâ€term legacy of drought and warming on the soil microbial community across five <scp>E</scp>uropean shrubland ecosystems. Global Change Biology, 2013, 19, 3872-3884.	4.2	109
69	Temperature adaptation of bacterial growth and 14C-glucose mineralisation in a laboratory study. Soil Biology and Biochemistry, 2013, 65, 294-303.	4.2	61
70	Microbial growth responses upon rewetting soil dried for four days or one year. Soil Biology and Biochemistry, 2013, 66, 188-192.	4.2	141
71	Bacterial growth and growth-limiting nutrients following chronic nitrogen additions to a hardwood forest soil. Soil Biology and Biochemistry, 2013, 59, 32-37.	4.2	39
72	Feather moss nitrogen acquisition across natural fertility gradients in boreal forests. Soil Biology and Biochemistry, 2013, 61, 86-95.	4.2	44

#	Article	IF	Citations
73	Bacterial growth and respiration responses upon rewetting dry forest soils: Impact of drought-legacy. Soil Biology and Biochemistry, 2013, 57, 477-486.	4.2	140
74	Transient biochar effects on decomposer microbial growth rates: evidence from two agricultural caseâ€studies. European Journal of Soil Science, 2013, 64, 770-776.	1.8	45
75	The Cyanobacterial Role in the Resistance of Feather Mosses to Decompositionâ€"Toward a New Hypothesis. PLoS ONE, 2013, 8, e62058.	1.1	12
76	N2 Fixation in Feather Mosses is a Sensitive Indicator of N Deposition in Boreal Forests. Ecosystems, 2012, 15, 986-998.	1.6	57
77	Activity of temperate grassland plants and symbiotic fungi during the winter â€" implications for community structure and carbon cycling in a changing climate. Nordic Journal of Botany, 2012, 30, 513-521.	0.2	9
78	Fungal and bacterial growth following the application of slurry and anaerobic digestate of livestock manure to temperate pasture soils. Biology and Fertility of Soils, 2012, 48, 889-897.	2.3	79
79	Comparative Toxicity of Nanoparticulate CuO and ZnO to Soil Bacterial Communities. PLoS ONE, 2012, 7, e34197.	1.1	124
80	Archaeal Abundance across a pH Gradient in an Arable Soil and Its Relationship to Bacterial and Fungal Growth Rates. Applied and Environmental Microbiology, 2012, 78, 5906-5911.	1.4	62
81	Nutrient dynamics, microbial growth and weed emergence in biochar amended soil are influenced by time since application and reapplication rate. Agriculture, Ecosystems and Environment, 2012, 158, 192-199.	2.5	186
82	Temperature adaptation of bacterial communities in experimentally warmed forest soils. Global Change Biology, 2012, 18, 3252-3258.	4.2	111
83	Biochar-mediated changes in soil quality and plant growth in a three year field trial. Soil Biology and Biochemistry, 2012, 45, 113-124.	4.2	724
84	Mineralization of low molecular weight carbon substrates in soil solution under laboratory and field conditions. Soil Biology and Biochemistry, 2012, 48, 88-95.	4.2	66
85	Fungal and bacterial growth responses to N fertilization and pH in the 150-year â€˜Park Grassâ€™ UK grassland experiment. FEMS Microbiology Ecology, 2011, 76, 89-99.	1.3	173
86	Growth of saprotrophic fungi and bacteria in soil. FEMS Microbiology Ecology, 2011, 78, 17-30.	1.3	353
87	Fungal and bacterial recolonisation of acid and alkaline forest soils following artificial heat treatments. Soil Biology and Biochemistry, 2011, 43, 1023-1033.	4.2	52
88	Bacterial pH-optima for growth track soil pH, but are higher than expected at low pH. Soil Biology and Biochemistry, 2011, 43, 1569-1575.	4.2	59
89	Bacterial salt tolerance is unrelated to soil salinity across an arid agroecosystem salinity gradient. Soil Biology and Biochemistry, 2011, 43, 1881-1887.	4.2	101
90	Effects of soil frost on growth, composition and respiration of the soil microbial decomposer community. Soil Biology and Biochemistry, 2011, 43, 2069-2077.	4.2	65

#	Article	IF	Citations
91	Microbial growth rate measurements reveal that land-use abandonment promotes a fungal dominance of SOM decomposition in grazed Mediterranean ecosystems. Biology and Fertility of Soils, 2011, 47, 129-138.	2.3	25
92	Lack of Correlation between Turnover of Low-Molecular-Weight Dissolved Organic Carbon and Differences in Microbial Community Composition or Growth across a Soil pH Gradient. Applied and Environmental Microbiology, 2011, 77, 2791-2795.	1.4	38
93	Dryingâ€"Rewetting Cycles Affect Fungal and Bacterial Growth Differently in an Arable Soil. Microbial Ecology, 2010, 60, 419-428.	1.4	191
94	Abundance, production and stabilization of microbial biomass under conventional and reduced tillage. Soil Biology and Biochemistry, 2010, 42, 48-55.	4.2	166
95	The microbial PLFA composition as affected by pH in an arable soil. Soil Biology and Biochemistry, 2010, 42, 516-520.	4.2	218
96	Investigating the mechanisms for the opposing pH relationships of fungal and bacterial growth in soil. Soil Biology and Biochemistry, 2010, 42, 926-934.	4.2	296
97	Considering fungal:bacterial dominance in soils â€" Methods, controls, and ecosystem implications. Soil Biology and Biochemistry, 2010, 42, 1385-1395.	4.2	900
98	Loss of low molecular weight dissolved organic carbon (DOC) and nitrogen (DON) in H2O and 0.5 M K2SO4 soil extracts. Soil Biology and Biochemistry, 2010, 42, 2331-2335.	4.2	108
99	Soil bacterial and fungal communities across a pH gradient in an arable soil. ISME Journal, 2010, 4, 1340-1351.	4.4	3,154
100	Growth measurements of saprotrophic fungi and bacteria reveal differences between canopy and forest floor soils. Soil Biology and Biochemistry, 2009, 41, 862-865.	4.2	34
101	Contrasting Short-Term Antibiotic Effects on Respiration and Bacterial Growth Compromises the Validity of the Selective Respiratory Inhibition Technique to Distinguish Fungi and Bacteria. Microbial Ecology, 2009, 58, 75-85.	1.4	61
102	Adaptation of soil microbial communities to temperature: comparison of fungi and bacteria in a laboratory experiment. Global Change Biology, 2009, 15, 2950-2957.	4.2	253
103	Temperature adaptation of soil bacterial communities along an Antarctic climate gradient: predicting responses to climate warming. Global Change Biology, 2009, 15, 2615-2625.	4.2	119
104	Contrasting Soil pH Effects on Fungal and Bacterial Growth Suggest Functional Redundancy in Carbon Mineralization. Applied and Environmental Microbiology, 2009, 75, 1589-1596.	1.4	1,280
105	Examining the fungal and bacterial niche overlap using selective inhibitors in soil. FEMS Microbiology Ecology, 2008, 63, 350-358.	1.3	147
106	Assessing plant-microbial competition for 33P using uptake into phospholipids. Applied Soil Ecology, 2007, 36, 233-237.	2.1	12
107	Fungal and bacterial growth in soil with plant materials of different C/N ratios. FEMS Microbiology Ecology, 2007, 62, 258-267.	1.3	317
108	Fungal biomass production and turnover in soil estimated using the acetate-in-ergosterol technique. Soil Biology and Biochemistry, 2007, 39, 2173-2177.	4.2	164