

# Naoise Nunan

## List of Publications by Year in descending order

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Version: 2024-02-01

82  
papers

6,540  
citations

57758

44  
h-index

66911

78  
g-index

95  
all docs

95  
docs citations

95  
times ranked

7316  
citing authors

#	ARTICLE	IF	CITATIONS
1	Scenario modelling of carbon mineralization in 3D soil architecture at the microscale: Toward an accessibility coefficient of organic matter for bacteria. <i>European Journal of Soil Science</i> , 2022, 73, .	3.9	10
2	Competition within low-density bacterial populations as an unexpected factor regulating carbon decomposition in bulk soil. <i>Soil Biology and Biochemistry</i> , 2022, 164, 108423.	8.8	3
3	Catching change in microbial diversity indicators under different soil organic matter managements: Higher taxonomic resolution, better discrimination?. <i>Ecological Indicators</i> , 2022, 139, 108897.	6.3	2
4	Topsoil characteristics of forests and lawns along an urban-rural gradient in the Paris region (France). <i>Soil Use and Management</i> , 2021, 37, 749-761.	4.9	4
5	Substrate spatial heterogeneity reduces soil microbial activity. <i>Soil Biology and Biochemistry</i> , 2021, 152, 108068.	8.8	26
6	Temperature and soil management effects on carbon fluxes and priming effect intensity. <i>Soil Biology and Biochemistry</i> , 2021, 153, 108103.	8.8	33
7	Small-Scale Variability in Bacterial Community Structure in Different Soil Types. <i>Microbial Ecology</i> , 2021, 82, 470-483.	2.8	5
8	Can Organic Amendments Improve Soil Physical Characteristics and Increase Maize Performances in Contrasting Soil Water Regimes?. <i>Agriculture (Switzerland)</i> , 2021, 11, 132.	3.1	6
9	Dynamic interactions at the mineral-organic matter interface. <i>Nature Reviews Earth &amp; Environment</i> , 2021, 2, 402-421.	29.7	301
10	Theory of microbial coexistence in promoting soil-plant ecosystem health. <i>Biology and Fertility of Soils</i> , 2021, 57, 897-911.	4.3	21
11	Persistence of soil organic carbon caused by functional complexity. <i>Nature Geoscience</i> , 2020, 13, 529-534.	12.9	363
12	The ecology of heterogeneity: soil bacterial communities and C dynamics. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190249.	4.0	76
13	Dynamic upscaling of decomposition kinetics for carbon cycling models. <i>Geoscientific Model Development</i> , 2020, 13, 1399-1429.	3.6	30
14	Tree growth and macrofauna colonization in Technosols constructed from recycled urban wastes. <i>Ecological Engineering</i> , 2020, 153, 105886.	3.6	13
15	Unravelling the effects of plant species diversity and aboveground litter input on soil bacterial communities. <i>Geoderma</i> , 2018, 317, 1-7.	5.1	37
16	Recognizing Patterns: Spatial Analysis of Observed Microbial Colonization on Root Surfaces. <i>Frontiers in Environmental Science</i> , 2018, 6, .	3.3	38
17	Emergent Properties of Microbial Activity in Heterogeneous Soil Microenvironments: Different Research Approaches Are Slowly Converging, Yet Major Challenges Remain. <i>Frontiers in Microbiology</i> , 2018, 9, 1929.	3.5	168
18	Increasing soil carbon storage: mechanisms, effects of agricultural practices and proxies. A review. <i>Agronomy for Sustainable Development</i> , 2017, 37, 1.	5.3	292

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19	Trace element concentrations along a gradient of urban pressure in forest and lawn soils of the Paris region (France). <i>Science of the Total Environment</i> , 2017, 598, 938-948.	8.0	78
20	Short-term responses and resistance of soil microbial community structure to elevated CO <sub>2</sub> and N addition in grassland mesocosms. <i>FEMS Microbiology Letters</i> , 2017, 364, .	1.8	26
21	The microbial habitat in soil: Scale, heterogeneity and functional consequences. <i>Journal of Plant Nutrition and Soil Science</i> , 2017, 180, 425-429.	1.9	50
22	Altered precipitation seasonality impacts the dominant fungal but rare bacterial taxa in subtropical forest soils. <i>Biology and Fertility of Soils</i> , 2017, 53, 231-245.	4.3	64
23	Effects of habitat constraints on soil microbial community function. <i>Scientific Reports</i> , 2017, 7, 4280.	3.3	58
24	Modelling the genesis of equatorial podzols: age and implications for carbon fluxes. <i>Biogeosciences</i> , 2017, 14, 2429-2440.	3.3	7
25	Modeling the effect of soil meso- and macropores topology on the biodegradation of a soluble carbon substrate. <i>Advances in Water Resources</i> , 2015, 83, 123-136.	3.8	54
26	Do general spatial relationships for microbial biomass and soil enzyme activities exist in temperate grassland soils?. <i>Soil Biology and Biochemistry</i> , 2015, 88, 430-440.	8.8	47
27	Metabolising old soil carbon: Simply a matter of simple organic matter?. <i>Soil Biology and Biochemistry</i> , 2015, 88, 128-136.	8.8	41
28	Coupling Between and Among Ammonia Oxidizers and Nitrite Oxidizers in Grassland Mesocosms Submitted to Elevated CO <sub>2</sub> and Nitrogen Supply. <i>Microbial Ecology</i> , 2015, 70, 809-818.	2.8	60
29	The spatial distribution of exoenzyme activities across the soil micro-landscape, as measured in micro- and macro-aggregates, and ecosystem processes. <i>Soil Biology and Biochemistry</i> , 2015, 91, 258-267.	8.8	30
30	Simulating Biological Dynamics Using Partial Differential Equations: Application to Decomposition of Organic Matter in 3D Soil Structure. <i>Vietnam Journal of Mathematics</i> , 2015, 43, 801-817.	0.8	2
31	Simulating microbial degradation of organic matter in a simple porous system using the 3-D diffusion-based model MOSAIC. <i>Biogeosciences</i> , 2014, 11, 2201-2209.	3.3	44
32	Community assembly effects shape the biodiversity–ecosystem functioning relationships. <i>Functional Ecology</i> , 2014, 28, 1523-1533.	3.6	24
33	Seasonal controls on grassland microbial biogeography: Are they governed by plants, abiotic properties or both?. <i>Soil Biology and Biochemistry</i> , 2014, 71, 21-30.	8.8	79
34	Thermal acclimation of organic matter decomposition in an artificial forest soil is related to shifts in microbial community structure. <i>Soil Biology and Biochemistry</i> , 2014, 71, 1-12.	8.8	77
35	Isothermal Microcalorimetry Provides New Insight into Terrestrial Carbon Cycling. <i>Environmental Science &amp; Technology</i> , 2014, 48, 4344-4352.	10.0	56
36	Localization of soil organic matter in soil aggregates using synchrotron-based X-ray microtomography. <i>Soil Biology and Biochemistry</i> , 2014, 78, 189-194.	8.8	87

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37	High clay content accelerates the decomposition of fresh organic matter in artificial soils. <i>Soil Biology and Biochemistry</i> , 2014, 77, 100-108.	8.8	89
38	Spatial Ecology of Bacteria at the Microscale in Soil. <i>PLoS ONE</i> , 2014, 9, e87217.	2.5	312
39	Soil carbon mineralisation responses to alterations of microbial diversity and soil structure. <i>Biology and Fertility of Soils</i> , 2013, 49, 939-948.	4.3	34
40	Agricultural management affects the response of soil bacterial community structure and respiration to water-stress. <i>Soil Biology and Biochemistry</i> , 2013, 66, 69-77.	8.8	41
41	Effects of different soil structures on the decomposition of native and added organic carbon. <i>European Journal of Soil Biology</i> , 2013, 58, 81-90.	3.2	61
42	Regulation of soil organic C mineralisation at the pore scale. <i>FEMS Microbiology Ecology</i> , 2013, 86, 26-35.	2.7	54
43	Modeling Microbial Decomposition in Real 3D Soil Structures Using Partial Differential Equations. <i>International Journal of Geosciences</i> , 2013, 04, 15-26.	0.6	10
44	Dynamics of bacterial communities in relation to soil aggregate formation during the decomposition of <sup>13</sup> C-labelled rice straw. <i>Applied Soil Ecology</i> , 2012, 53, 1-9.	4.3	81
45	The impact of long-term CO <sub>2</sub> enrichment and moisture levels on soil microbial community structure and enzyme activities. <i>Geoderma</i> , 2012, 170, 331-336.	5.1	97
46	Contrasting composition of free and mineral-bound organic matter in top- and subsoil horizons of Andosols. <i>Biology and Fertility of Soils</i> , 2012, 48, 401-411.	4.3	48
47	Impact of soil matric potential on the fine-scale spatial distribution and activity of specific microbial degrader communities. <i>FEMS Microbiology Ecology</i> , 2012, 81, 673-683.	2.7	23
48	Litter inputs and plant interactions affect nectar sugar content. <i>Journal of Ecology</i> , 2011, 99, 828-837.	4.0	41
49	Microbial biogeography at the soil pore scale. <i>Soil Biology and Biochemistry</i> , 2011, 43, 280-286.	8.8	166
50	Variations in microbial isotopic fractionation during soil organic matter decomposition. <i>Biogeochemistry</i> , 2011, 106, 5-21.	3.5	75
51	Remediation of polycyclic aromatic hydrocarbon (PAH) contaminated soil through composting with fresh organic wastes. <i>Environmental Science and Pollution Research</i> , 2011, 18, 1574-1584.	5.3	44
52	A miniaturised method to quantify microbial mineralisation of <sup>13</sup> C-labelled organic compounds in small soil samples. <i>Soil Biology and Biochemistry</i> , 2010, 42, 1640-1642.	8.8	4
53	Carbon dynamics in topsoil and in subsoil may be controlled by different regulatory mechanisms. <i>Global Change Biology</i> , 2010, 16, 416-426.	9.5	357
54	Spatial dependence of organic carbon-metal relationships. <i>Geoderma</i> , 2010, 158, 120-127.	5.1	28

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55	Dynamics of soil microbial populations involved in 2,4-D biodegradation revealed by FAME-based Stable Isotope Probing. <i>Soil Biology and Biochemistry</i> , 2009, 41, 77-85.	8.8	45
56	Response of fungal, bacterial and ureolytic communities to synthetic sheep urine deposition in a grassland soil. <i>FEMS Microbiology Ecology</i> , 2009, 70, 109-117.	2.7	27
57	Impact of landuse change on the molecular composition of soil organic matter. <i>Journal of Analytical and Applied Pyrolysis</i> , 2009, 85, 431-434.	5.5	40
58	Ageing processes and soil microbial community effects on the biodegradation of soil 13C-2,4-D nonextractable residues. <i>Environmental Pollution</i> , 2009, 157, 2985-2993.	7.5	26
59	Relationship between assemblages of mycorrhizal fungi and bacteria on grass roots. <i>Environmental Microbiology</i> , 2008, 10, 534-541.	3.8	86
60	Gas chromatographic metabolic profiling: A sensitive tool for functional microbial ecology. <i>Journal of Microbiological Methods</i> , 2008, 75, 491-500.	1.6	18
61	Chapter 4 Microbial Distribution in Soils. <i>Advances in Agronomy</i> , 2008, 100, 81-121.	5.2	166
62	A novel method for the study of the biophysical interface in soils using nano-scale secondary ion mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2007, 21, 29-34.	1.5	77
63	Nano-scale secondary ion mass spectrometry – A new analytical tool in biogeochemistry and soil ecology: A review article. <i>Soil Biology and Biochemistry</i> , 2007, 39, 1835-1850.	8.8	178
64	Bacterial Interactions At The Microscale – Linking Habitat To Function In Soil. , 2007, , 61-85.		21
65	Investigating microbial micro-habitat structure using X-ray computed tomography. <i>Geoderma</i> , 2006, 133, 398-407.	5.1	115
66	Multivariate analysis of protein profiles of metal hyperaccumulator <i>Thlaspi caerulescens</i> accessions. <i>Proteomics</i> , 2006, 6, 3696-3706.	2.2	59
67	Proteomic analysis of the potato tuber life cycle. <i>Proteomics</i> , 2006, 6, 6042-6052.	2.2	74
68	Sheep-urine-induced changes in soil microbial community structure. <i>FEMS Microbiology Ecology</i> , 2006, 56, 310-320.	2.7	29
69	Three-dimensional Microorganization of the Soil – Root – Microbe System. <i>Microbial Ecology</i> , 2006, 52, 151-158.	2.8	227
70	The effects of soil horizons and faunal excrement on bacterial distribution in an upland grassland soil. <i>FEMS Microbiology Ecology</i> , 2005, 52, 139-144.	2.7	23
71	Links between Plant and Rhizoplane Bacterial Communities in Grassland Soils, Characterized Using Molecular Techniques. <i>Applied and Environmental Microbiology</i> , 2005, 71, 6784-6792.	3.1	144
72	Comparison of Tuber Proteomes of Potato Varieties, Landraces, and Genetically Modified Lines. <i>Plant Physiology</i> , 2005, 138, 1690-1699.	4.8	195

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73	Spatial structure in soil chemical and microbiological properties in an upland grassland. FEMS Microbiology Ecology, 2004, 49, 191-205.	2.7	154
74	An Efficient Markov Chain Model for the Simulation of Heterogeneous Soil Structure. Soil Science Society of America Journal, 2004, 68, 346-351.	2.2	118
75	Millimeter-scale Spatial Variability in Soil Water Sorptivity. Soil Science Society of America Journal, 2004, 68, 352-358.	2.2	96
76	An Efficient Markov Chain Model for the Simulation of Heterogeneous Soil Structure. Soil Science Society of America Journal, 2004, 68, 346.	2.2	24
77	Spatial distribution of bacterial communities and their relationships with the micro-architecture of soil. FEMS Microbiology Ecology, 2003, 44, 203-215.	2.7	291
78	In Situ Spatial Patterns of Soil Bacterial Populations, Mapped at Multiple Scales, in an Arable Soil. Microbial Ecology, 2002, 44, 296-305.	2.8	180
79	Organic matter extracted with 0.01 M CaCl <sub>2</sub> or with 0.01 M NaHCO <sub>3</sub> as indices of N mineralisation and microbial biomass. Biology and Fertility of Soils, 2001, 34, 433-440.	4.3	8
80	Title is missing!. Water, Air, and Soil Pollution, 2001, 130, 1055-1060.	2.4	9
81	Quantification of the in situ distribution of soil bacteria by large-scale imaging of thin sections of undisturbed soil. FEMS Microbiology Ecology, 2001, 37, 67-77.	2.7	104
82	Ultraviolet absorbance (280nm) of compounds released from soil during chloroform fumigation as an estimate of the microbial biomass. Soil Biology and Biochemistry, 1998, 30, 1599-1603.	8.8	116