Paul L Bodelier

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

129	6,962	44	81
papers	citations	h-index	g-index

153	8,188	6.1	6.03
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
129	Nitrogen as a regulatory factor of methane oxidation in soils and sediments. *FEMS Microbiology Ecology*, **2004**, 47, 265-77	4.3	528
128	Methane oxidation by an extremely acidophilic bacterium of the phylum Verrucomicrobia. *Nature*, **2007**, 450, 879-82	50.4	422
127	Stimulation by ammonium-based fertilizers of methane oxidation in soil around rice roots. *Nature*, **2000**, 403, 421-4	50.4	401
126	Shifting carbon flow from roots into associated microbial communities in response to elevated atmospheric CO2. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 10938-42	11.5	295
125	The impact of climate change on lakes in the Netherlands: a review. *Aquatic Ecology*, **2005**, 39, 381-400	1.9	223
124	Trait-based approaches for understanding microbial biodiversity and ecosystem functioning. *Frontiers in Microbiology*, **2014**, 5, 251	5.7	212
123	Revisiting life strategy concepts in environmental microbial ecology. *FEMS Microbiology Ecology*, **2017**, 93,	4.3	194
122	Differential effects of nitrogenous fertilizers on methane-consuming microbes in rice field and forest soils. *Applied and Environmental Microbiology*, **2006**, 72, 1346-54	4.8	176
121	Conceptualizing functional traits and ecological characteristics of methane-oxidizing bacteria as life strategies. *Environmental Microbiology Reports*, **2013**, 5, 335-45	3.7	165
120	Dynamics of nitrification and denitrification in root-oxygenated sediments and adaptation of ammonia-oxidizing bacteria to low-oxygen or anoxic habitats. *Applied and Environmental Microbiology*, **1996**, 62, 4100-7	4.8	155
119	Conventional methanotrophs are responsible for atmospheric methane oxidation in paddy soils. *Nature Communications*, **2016**, 7, 11728	17.4	132
118	Interactions between nitrogenous fertilizers and methane cycling in wetland and upland soils. *Current Opinion in Environmental Sustainability*, **2011**, 3, 379-388	7.2	130
117	Community analysis of ammonia-oxidising bacteria, in relation to oxygen availability in soils and root-oxygenated sediments, using PCR, DGGE and oligonucleotide probe hybridisation. *FEMS Microbiology Ecology*, **1998**, 27, 339-350	4.3	129
116	Oxygen consumption kinetics of Nitrosomonas europaea and Nitrobacter hamburgensis grown in mixed continuous cultures at different oxygen concentrations. *Archives of Microbiology*, **1994**, 161, 156-162	3	110
115	The active methanotrophic community in hydromorphic soils changes in response to changing methane concentration. *Environmental Microbiology*, **2006**, 8, 321-33	5.2	109
114	Effects of ammonium-based fertilisation on microbialprocesses involved in methane emission from soilsplanted with rice. *Biogeochemistry*, **2000**, 51, 225-257	3.8	107
113	Methylocystis heyeri sp. nov., a novel type II methanotrophic bacterium possessing signature fatty acids of type I methanotrophs. *International Journal of Systematic and Evolutionary Microbiology*, **2007**, 57, 472-479	2.2	101

112	Contribution of methanotrophic and nitrifying bacteria to CH4 and NH4+ oxidation in the rhizosphere of rice plants as determined by new methods of discrimination. *Applied and Environmental Microbiology*, **1999**, 65, 1826-33	4.8	99
111	Acetate utilization as a survival strategy of peat-inhabiting Methylocystis spp. *Environmental Microbiology Reports*, **2011**, 3, 36-46	3.7	98
110	Effect of temperature on composition of the methanotrophic community in rice field and forest soil. *FEMS Microbiology Ecology*, **2007**, 62, 24-31	4.3	97
109	A reanalysis of phospholipid fatty acids as ecological biomarkers for methanotrophic bacteria. *ISME Journal*, **2009**, 3, 606-17	11.9	96
108	Effects of Grazing by the Free-Living Soil Amoebae Acanthamoeba castellanii, Acanthamoeba polyphaga, and Hartmannella vermiformis on Various Bacteria. *Applied and Environmental Microbiology*, **1993**, 59, 2317-9	4.8	92
107	Soil type links microbial colonization of rice roots to methane emission. *Global Change Biology*, **2008**, 14, 657-669	11.4	91
106	Toward understanding, managing, and protecting microbial ecosystems. *Frontiers in Microbiology*, **2011**, 2, 80	5.7	85
105	Interactions between Thaumarchaea, Nitrospira and methanotrophs modulate autotrophic nitrification in volcanic grassland soil. *ISME Journal*, **2014**, 8, 2397-410	11.9	83
104	Singulisphaera acidiphila gen. nov., sp. nov., a non-filamentous, Isosphaera-like planctomycete from acidic northern wetlands. *International Journal of Systematic and Evolutionary Microbiology*, **2008**, 58, 1186-93	2.2	82
103	Community analysis of methanogenic archaea within a riparian flooding gradient. *Environmental Microbiology*, **2004**, 6, 449-61	5.2	79
102	Schlesneria paludicola gen. nov., sp. nov., the first acidophilic member of the order Planctomycetales, from Sphagnum-dominated boreal wetlands. *International Journal of Systematic and Evolutionary Microbiology*, **2007**, 57, 2680-2687	2.2	74
101	Biotic Interactions in Microbial Communities as Modulators of Biogeochemical Processes: Methanotrophy as a Model System. *Frontiers in Microbiology*, **2016**, 7, 1285	5.7	71
100	Peatland vascular plant functional types affect methane dynamics by altering microbial community structure. *Journal of Ecology*, **2015**, 103, 925-934	6	69
99	Microbial minorities modulate methane consumption through niche partitioning. *ISME Journal*, **2013**, 7, 2214-28	11.9	67
98	Zavarzinella formosa gen. nov., sp. nov., a novel stalked, Gemmata-like planctomycete from a Siberian peat bog. *International Journal of Systematic and Evolutionary Microbiology*, **2009**, 59, 357-64	2.2	67
97	Methane-derived carbon flows through methane-oxidizing bacteria to higher trophic levels in aquatic systems. *Environmental Microbiology*, **2007**, 9, 1126-34	5.2	67
96	Diversity of iron oxidizers in wetland soils revealed by novel 16S rRNA primers targeting Gallionella-related bacteria. *ISME Journal*, **2009**, 3, 715-25	11.9	63
95	Interactions between methane and the nitrogen cycle in light of climate change. *Current Opinion in Environmental Sustainability*, **2014**, 9-10, 26-36	7.2	62

94	Biphasic kinetics of a methanotrophic community is a combination of growth and increased activity per cell. *FEMS Microbiology Ecology*, **2010**, 71, 12-22	4.3	59
93	Beyond nitrogen: The importance of phosphorus for CH 4 oxidation in soils and sediments. *Geoderma*, **2015**, 259-260, 337-346	6.7	58
92	Phosphatases relieve carbon limitation of microbial activity in Baltic Sea sediments along a redox-gradient. *Limnology and Oceanography*, **2011**, 56, 2018-2026	4.8	54
91	Hydrology is reflected in the functioning and community composition of methanotrophs in the littoral wetland of a boreal lake. *FEMS Microbiology Ecology*, **2011**, 75, 430-45	4.3	52
90	Methylocystis bryophila sp. nov., a facultatively methanotrophic bacterium from acidic Sphagnum peat, and emended description of the genus Methylocystis (ex Whittenbury et al. 1970) Bowman et al. 1993. *International Journal of Systematic and Evolutionary Microbiology*, **2013**, 63, 1096-1104	2.2	51
89	Competitive interactions between methane- and ammonia-oxidizing bacteria modulate carbon and nitrogen cycling in paddy soil. *Biogeosciences*, **2014**, 11, 3353-3368	4.6	51
88	Microbiology of wetlands. *Frontiers in Microbiology*, **2013**, 4, 79	5.7	49
87	Effect of salinity on temporal and spatial dynamics of ammonia-oxidising bacteria from intertidal freshwater sediment. *FEMS Microbiology Ecology*, **2005**, 53, 359-68	4.3	49
86	Methylomonas paludis sp. nov., the first acid-tolerant member of the genus Methylomonas, from an acidic wetland. *International Journal of Systematic and Evolutionary Microbiology*, **2013**, 63, 2282-2289	2.2	46
85	Fossil chironomid □13C as a proxy for past methanogenic contribution to benthic food webs in lakes?. *Journal of Paleolimnology*, **2010**, 43, 235-245	2.1	44
84	Combined effects of carbon, nitrogen and phosphorus on CH 4 production and denitrification in wetland sediments. *Geoderma*, **2015**, 259-260, 354-361	6.7	43
83	A nested PCR approach for improved recovery of archaeal 16S rRNA gene fragments from freshwater samples. *FEMS Microbiology Letters*, **2009**, 298, 193-8	2.9	43
82	Cattle Manure Enhances Methanogens Diversity and Methane Emissions Compared to Swine Manure under Rice Paddy. *PLoS ONE*, **2014**, 9, e113593	3.7	42
81	Improved PCR-DGGE for high resolution diversity screening of complex sulfate-reducing prokaryotic communities in soils and sediments. *Journal of Microbiological Methods*, **2007**, 70, 103-11	2.8	41
80	Effects of photoperiod on growth of and denitrification by Pseudomonas chlororaphis in the root zone of Glyceria maxima, studied in a gnotobiotic microcosm. *Plant and Soil*, **1997**, 190, 91-103	4.2	39
79	Singulisphaera rosea sp. nov., a planctomycete from acidic Sphagnum peat, and emended description of the genus Singulisphaera. *International Journal of Systematic and Evolutionary Microbiology*, **2012**, 62, 118-123	2.2	33
78	New DGGE strategies for the analyses of methanotrophic microbial communities using different combinations of existing 16S rRNA-based primers. *FEMS Microbiology Ecology*, **2005**, 52, 163-74	4.3	33
77	Unexpected stimulation of soil methane uptake as emergent property of agricultural soils following bio-based residue application. *Global Change Biology*, **2015**, 21, 3864-79	11.4	32

76	Archaeal dominated ammonia-oxidizing communities in Icelandic grassland soils are moderately affected by long-term N fertilization and geothermal heating. *Frontiers in Microbiology*, **2012**, 3, 352	5.7	32
75	Interactions between nitrifying and denitrifying bacteria in gnotobiotic microcosms planted with the emergent macrophyte Glyceria maxima. *FEMS Microbiology Ecology*, **1998**, 25, 63-78	4.3	32
74	Biogeography of sulfate-reducing prokaryotes in river floodplains. *FEMS Microbiology Ecology*, **2008** , 64, 395-406	4.3	31
73	Living apart together-bacterial volatiles influence methanotrophic growth and activity. *ISME Journal*, **2018**, 12, 1163-1166	11.9	30
72	Distribution and diversity of Gallionella-like neutrophilic iron oxidizers in a tidal freshwater marsh. *Applied and Environmental Microbiology*, **2011**, 77, 2337-44	4.8	30
71	Recurrence and Frequency of Disturbance have Cumulative Effect on Methanotrophic Activity, Abundance, and Community Structure. *Frontiers in Microbiology*, **2015**, 6, 1493	5.7	30
70	Diazotrophic methanotrophs in peatlands: the missing link?. *Plant and Soil*, **2015**, 389, 419-423	4.2	29
69	Impacts of inter- and intralaboratory variations on the reproducibility of microbial community analyses. *Applied and Environmental Microbiology*, **2010**, 76, 7451-8	4.8	29
68	Methylovirgula ligni gen. nov., sp. nov., an obligately acidophilic, facultatively methylotrophic bacterium with a highly divergent mxaF gene. *International Journal of Systematic and Evolutionary Microbiology*, **2009**, 59, 2538-45	2.2	29
67	Structural and functional response of methane-consuming microbial communities to different flooding regimes in riparian soils. *Ecology and Evolution*, **2012**, 2, 106-27	2.8	28
66	Animal-plant-microbe interactions: direct and indirect effects of swan foraging behaviour modulate methane cycling in temperate shallow wetlands. *Oecologia*, **2006**, 149, 233-44	2.9	28
65	Manure-associated stimulation of soil-borne methanogenic activity in agricultural soils. *Biology and Fertility of Soils*, **2015**, 51, 511-516	6.1	27
64	Impact of Peat Mining and Restoration on Methane Turnover Potential and Methane-Cycling Microorganisms in a Northern Bog. *Applied and Environmental Microbiology*, **2018**, 84,	4.8	27
63	Unexpected role of canonical aerobic methanotrophs in upland agricultural soils. *Soil Biology and Biochemistry*, **2019**, 131, 1-8	7.5	26
62	Organic Residue Amendments to Modulate Greenhouse Gas Emissions From Agricultural Soils. *Frontiers in Microbiology*, **2018**, 9, 3035	5.7	26
61	Seasonal and vertical distribution of putative ammonia-oxidizing thaumarchaeotal communities in an oligotrophic lake. *FEMS Microbiology Ecology*, **2013**, 83, 515-26	4.3	25
60	Spatial patterns of iron- and methane-oxidizing bacterial communities in an irregularly flooded, riparian wetland. *Frontiers in Microbiology*, **2012**, 3, 64	5.7	24
59	Aquatic herbivores facilitate the emission of methane from wetlands. *Ecology*, **2011**, 92, 1166-73	4.6	24

58	Predominance of methanogens over methanotrophs in rewetted fens characterized by high methane emissions. *Biogeosciences*, **2018**, 15, 6519-6536	4.6	24
57	Field-scale tracking of active methane-oxidizing communities in a landfill cover soil reveals spatial and seasonal variability. *Environmental Microbiology*, **2015**, 17, 1721-37	5.2	23
56	Temporal and spatial coexistence of archaeal and bacterial amoA genes and gene transcripts in Lake Lucerne. *Archaea*, **2013**, 2013, 289478	2	23
55	Quantitative assessment of ammonia-oxidizing bacterial communities in the epiphyton of submerged macrophytes in shallow lakes. *Applied and Environmental Microbiology*, **2010**, 76, 1813-21	4.8	23
54	Effects of bio-based residue amendments on greenhouse gas emission from agricultural soil are stronger than effects of soil type with different microbial community composition. *GCB Bioenergy*, **2017**, 9, 1707-1720	5.6	22
53	Epiphyton as a niche for ammonia-oxidizing bacteria: detailed comparison with benthic and pelagic compartments in shallow freshwater lakes. *Applied and Environmental Microbiology*, **2008**, 74, 1963-71	4.8	20
52	Soil warming and fertilization altered rates of nitrogen transformation processes and selected for adapted ammonia-oxidizing archaea in sub-arctic grassland soil. *Soil Biology and Biochemistry*, **2017**, 107, 114-124	7.5	19
51	Resistance and Recovery of Methane-Oxidizing Communities Depends on Stress Regime and History; A Microcosm Study. *Frontiers in Microbiology*, **2018**, 9, 1714	5.7	19
50	Decomposition of mixtures of cover crop residues increases microbial functional diversity. *Geoderma*, **2020**, 361, 114060	6.7	19
49	Trophic state changes can affect the importance of methane-derived carbon in aquatic food webs. *Proceedings of the Royal Society B: Biological Sciences*, **2017**, 284,	4.4	18
48	Rice straw serves as additional carbon source for rhizosphere microorganisms and reduces root exudate consumption. *Soil Biology and Biochemistry*, **2019**, 135, 235-238	7.5	18
47	Positive diversity-functioning relationships in model communities of methanotrophic bacteria. *Ecology*, **2018**, 99, 714-723	4.6	18
46	Characterization of Methylobacterium strains isolated from the phyllosphere and description of Methylobacterium longum sp. nov. *Antonie Van Leeuwenhoek*, **2012**, 101, 169-83	2.1	18
45	Remarkable recovery and colonization behaviour of methane oxidizing bacteria in soil after disturbance is controlled by methane source only. *Microbial Ecology*, **2014**, 68, 259-70	4.4	17
44	Sustainability: Bypassing the methane cycle. *Nature*, **2015**, 523, 534-5	50.4	16
43	Nitrification in the rhizosphere of a flooding-resistant and a flooding-non-resistantRumexspecies under drained and waterlogged conditions. *FEMS Microbiology Letters*, **1991**, 86, 33-42	2.9	16
42	Ammonia-limited conditions cause of Thaumarchaeal dominance in volcanic grassland soil. *FEMS Microbiology Ecology*, **2015**, 91,	4.3	15
41	Bacterial Diversity and Geochemical Profiles in Sediments from Eutrophic Azorean Lakes. *Geomicrobiology Journal*, **2012**, 29, 704-715	2.5	15

40	Oxygen uptake kinetics of Pseudomonas chlororaphis grown in glucose- or glutamate-limited continuous cultures. *Archives of Microbiology*, **1997**, 167, 392-395	3	15
39	Does microbial stoichiometry modulate eutrophication of aquatic ecosystems?. *Environmental Microbiology*, **2013**, 15, 1572-9	5.2	14
38	Spatial patterns of methanotrophic communities along a hydrological gradient in a riparian wetland. *FEMS Microbiology Ecology*, **2013**, 86, 59-70	4.3	14
37	Strain-specific incorporation of methanotrophic biomass into eukaryotic grazers in a rice field soil revealed by PLFA-SIP. *FEMS Microbiology Ecology*, **2011**, 75, 284-90	4.3	14
36	Ethyl tert-butyl ether (EtBE) degradation by an algal-bacterial culture obtained from contaminated groundwater. *Water Research*, **2019**, 148, 314-323	12.5	13
35	Weak phylogenetic signal in physiological traits of methane-oxidizing bacteria. *Journal of Evolutionary Biology*, **2014**, 27, 1240-7	2.3	12
34	Whole-community genome amplification (WCGA) leads to compositional bias in methane-oxidizing communities as assessed by pmoA-based microarray analyses and QPCR. *Environmental Microbiology Reports*, **2009**, 1, 434-41	3.7	12
33	Strain C50C1 Is a Novel Type Ib Gammaproteobacterial Methanotroph Adapted to Freshwater Environments. *MSphere*, **2019**, 4,	5	11
32	Niche Differentiation of Host-Associated Pelagic Microbes and Their Potential Contribution to Biogeochemical Cycling in Artificially Warmed Lakes. *Frontiers in Microbiology*, **2020**, 11, 582	5.7	11
31	Methane as a carbon source for the food web in raised bog pools. *Freshwater Science*, **2013**, 32, 1260-1272	2	11
30	Effect of redox conditions on bacterial community structure in Baltic Sea sediments with contrasting phosphorus fluxes. *PLoS ONE*, **2014**, 9, e92401	3.7	10
29	Response of the sulfate-reducing community to the re-establishment of estuarine conditions in two contrasting soils: a mesocosm approach. *Microbial Ecology*, **2010**, 59, 109-20	4.4	9
28	Limitations of the use of group-specific primers in real-time PCR as appear from quantitative analyses of closely related ammonia-oxidising species. *Water Research*, **2008**, 42, 1093-101	12.5	9
27	Validation of the correct start codon of norX/nxrX and universality of the norAXB/nxrAXB gene cluster in nitrobacter species. *Current Microbiology*, **2006**, 53, 255-7	2.4	9
26	Response of a methane-driven interaction network to stressor intensification. *FEMS Microbiology Ecology*, **2020**, 96,	4.3	9
25	Environmental legacy contributes to the resilience of methane consumption in a laboratory microcosm system. *Scientific Reports*, **2018**, 8, 8862	4.9	8
24	Aquatic herbivores facilitate the emission of methane from wetlands **2011**, 92, 1166		8
23	Preliminary investigations into the background levels of various metals and boron in the aquatic liverwort Scapania uliginosa (Sw.) Dum.. *Aquatic Botany*, **1991**, 39, 345-352	1.8	7

22	Modulation of Litter Decomposition by the Soil Microbial Food Web Under Influence of Land Use Change. *Frontiers in Microbiology*, **2018**, 9, 2860	5.7	7
21	Ecological Aspects of Microbes and Microbial Communities Inhabiting the Rhizosphere of Wetland Plants **2006**, 205-238		6
20	Oxygen consumption kinetics of Nitrosomonas europaea and Nitrobacter hamburgensis grown in mixed continuous cultures at different oxygen concentrations **1994**, 161, 156		6
19	Abundance and ▯13C values of fatty acids in lacustrine surface sediments: Relationships with in-lake methane concentrations. *Quaternary Science Reviews*, **2018**, 191, 337-347	3.9	5
18	Compositional and functional stability of aerobic methane consuming communities in drained and rewetted peat meadows. *FEMS Microbiology Ecology*, **2015**, 91,	4.3	4
17	Plant community flood resilience in intensively managed grasslands and the role of the plant economic spectrum. *Journal of Applied Ecology*, **2020**, 57, 1524-1534	5.8	4
16	Phylogenetic Characterization of Phosphatase-Expressing Bacterial Communities in Baltic Sea Sediments. *Microbes and Environments*, **2015**, 30, 192-5	2.6	4
15	DNA stable-isotope probing highlights the effects of temperature on functionally active methanotrophs in natural wetlands. *Soil Biology and Biochemistry*, **2020**, 149, 107954	7.5	4
14	Trophic and non-trophic effects of fish and macroinvertebrates on carbon emissions. *Freshwater Biology*, **2021**, 66, 1831-1845	3.1	4
13	Methanotroph Ecology, Environmental Distribution and Functioning. *Microbiology Monographs*, **2019**, 1-38	0.8	3
12	Discrepancy in exchangeable and soluble ammonium-induced effects on aerobic methane oxidation: a microcosm study of a paddy soil. *Biology and Fertility of Soils*, **2021**, 57, 873-880	6.1	3
11	Can flooding-induced greenhouse gas emissions be mitigated by trait-based plant species choice?. *Science of the Total Environment*, **2020**, 727, 138476	10.2	3
10	Steering microbiomes by organic amendments towards climate-smart agricultural soils. *Biology and Fertility of Soils*, **2021**, 57, 1053	6.1	3
9	Microbial Ecosystem Functions in Wetlands under Disturbance **2017**, 227-274		2
8	Co-occurrence patterns among prokaryotes across an age gradient in pit mud of Chinese strong-flavor liquor. *Canadian Journal of Microbiology*, **2020**, 66, 495-504	3.2	2
7	Effect of the aerenchymatous helophyte Glyceria maxima on the sulfate-reducing communities in two contrasting riparian grassland soils. *Plant and Soil*, **2013**, 370, 73-87	4.2	1
6	USC Dominated Community Composition and Cooccurrence Network of Methanotrophs and Bacteria in Subterranean Karst Caves. *Microbiology Spectrum*, **2021**, 9, e0082021	8.9	1
5	Methane-Derived Carbon as a Driver for Cyanobacterial Growth.. *Frontiers in Microbiology*, **2022**, 13, 837198	5.7	1

4	Active methane processing microbes and the disproportionate role of NC10 phylum in methane mitigation in Amazonian floodplains. *Biogeochemistry*, **2021**, 156, 293	3.8	0
3	Greenhouse gas (CO2, CH4, and N2O) emissions after abandonment of agriculture. *Biology and Fertility of Soils*,1	6.1	0
2	PhyloFunDB: A Pipeline to Create and Update Functional Gene Taxonomic Databases. *Microorganisms*, **2022**, 10, 1093	4.9	
1	Microbial trait-based approaches for agroecosystems. *Advances in Agronomy*, **2022**,	7.7	