Alexandre M Anesio

List of Publications by Year
in descending order

112 papers	7,033 citations	41258 49 h-index	64668 79 g-index
123 all docs	123 docs citations	123 times ranked	5383 citing authors

#	Article	IF	Citations
1	GLACIAL ECOSYSTEMS. Ecological Monographs, 2008, 78, 41-67.	2.4	435
2	Microbial ecology of the cryosphere: sea ice and glacial habitats. Nature Reviews Microbiology, 2015, 13, 677-690.	13.6	344
3	Glaciers and ice sheets as a biome. Trends in Ecology and Evolution, 2012, 27, 219-225.	4.2	282
4	High microbial activity on glaciers: importance to the global carbon cycle. Global Change Biology, 2009, 15, 955-960.	4.2	280
5	The microbiome of glaciers and ice sheets. Npj Biofilms and Microbiomes, 2017, 3, 10.	2.9	215
6	Photophysiology and albedo-changing potential of the ice algal community on the surface of the Greenland ice sheet. ISME Journal, 2012, 6, 2302-2313.	4.4	190
7	Potential methane reservoirs beneath Antarctica. Nature, 2012, 488, 633-637.	13.7	184
8	The biogeography of red snow microbiomes and their role in melting arctic glaciers. Nature Communications, 2016, 7, 11968.	5.8	171
9	Possible interactions between bacterial diversity, microbial activity and supraglacial hydrology of cryoconite holes in Svalbard. ISME Journal, 2011, 5, 150-160.	4.4	149
10	Effect of Humic Substance Photodegradation on Bacterial Growth and Respiration in Lake Water. Applied and Environmental Microbiology, 2005, 71, 6267-6275.	1.4	130
11	Microbial community dynamics in the forefield of glaciers. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20140882.	1.2	115
12	A glacier respires: Quantifying the distribution and respiration CO₂ flux of cryoconite across an entire Arctic supraglacial ecosystem. Journal of Geophysical Research, 2007, 112, .	3.3	109
13	Variations of algal communities cause darkening of a Greenland glacier. FEMS Microbiology Ecology, 2014, 89, 402-414.	1.3	108
14	Carbon fluxes through bacterial communities on glacier surfaces. Annals of Glaciology, 2010, 51, 32-40.	2.8	104
15	Factors influencing bacterial dynamics along a transect from supraglacial runoff to proglacial lakes of a high Arctic glacieri. FEMS Microbiology Ecology, 2007, 59, 307-317.	1.3	103
16	Bacteriophage in polar inland waters. Extremophiles, 2008, 12, 167-175.	0.9	95
17	Environmental Controls on Microbial Abundance and Activity on the Greenland Ice Sheet: A Multivariate Analysis Approach. Microbial Ecology, 2012, 63, 74-84.	1.4	93
18	Nitrogen fixation on Arctic glaciers, Svalbard. Journal of Geophysical Research, 2011, 116, .	3.3	91

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19	Coupled cryoconite ecosystem structure-function relationships are revealed by comparing bacterial communities in alpine and Arctic glaciers. FEMS Microbiology Ecology, 2014, 89, 222-237.	1.3	90
20	Microbial diversity on Icelandic glaciers and ice caps. Frontiers in Microbiology, 2015, 6, 307.	1.5	88
21	Linking microbial diversity and functionality of arctic glacial surface habitats. Environmental Microbiology, 2017, 19, 551-565.	1.8	84
22	Are low temperature habitats hot spots of microbial evolution driven by viruses?. Trends in Microbiology, 2011, 19, 52-57.	3.5	83
23	The in situ bacterial production of fluorescent organic matter; an investigation at a species level. Water Research, 2017, 125, 350-359.	5.3	83
24	Methanogenic potential of Arctic and Antarctic subglacial environments with contrasting organic carbon sources. Global Change Biology, 2012, 18, 3332-3345.	4.2	82
25	Viral dynamics in cryoconite holes on a high Arctic glacier (Svalbard). Journal of Geophysical Research, 2007, 112, .	3.3	81
26	Multiple adaptations to polar and alpine environments within cyanobacteria: a phylogenomic and Bayesian approach. Frontiers in Microbiology, 2015, 6, 1070.	1.5	81
27	Algal photophysiology drives darkening and melt of the Greenland Ice Sheet. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5694-5705.	3.3	81
28	Genomic mechanisms for cold tolerance and production of exopolysaccharides in the Arctic cyanobacterium Phormidesmis priestleyi BC1401. BMC Genomics, 2016, 17, 533.	1.2	81
29	Glacier algae accelerate melt rates on the south-western Greenland Ice Sheet. Cryosphere, 2020, 14, 309-330.	1.5	78
30	Microbially driven export of labile organic carbon from the Greenland ice sheet. Nature Geoscience, 2017, 10, 360-365.	5.4	75
31	Organic matter content and quality in supraglacial debris across the ablation zone of the Greenland ice sheet. Annals of Glaciology, 2010, 51, 1-8.	2.8	74
32	Greenland melt drives continuous export of methane from the ice-sheet bed. Nature, 2019, 565, 73-77.	13.7	72
33	Importance of biofilm as food source for shrimp (Farfantepenaeus paulensis) evaluated by stable isotopes (Î´13C and Î´15N). Journal of Experimental Marine Biology and Ecology, 2007, 347, 88-96.	0.7	69
34	Increased photoreactivity of DOC by acidification: Implications for the carbon cycle in humic lakes. Limnology and Oceanography, 2003, 48, 735-744.	1.6	66
35	A distinctive fungal community inhabiting cryoconite holes on glaciers in Svalbard. Fungal Ecology, 2013, 6, 168-176.	0.7	66
36	High viral infection rates in Antarctic and Arctic bacterioplankton. Environmental Microbiology, 2007, 9, 250-255.	1.8	65

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37	Microbial cell budgets of an <scp>A</scp>rctic glacier surface quantified using flow cytometry. Environmental Microbiology, 2012, 14, 2998-3012.	1.8	65
38	Analysis of virus genomes from glacial environments reveals novel virus groups with unusual host interactions. Frontiers in Microbiology, 2015, 6, 656.	1.5	65
39	Seasonal Viral Loop Dynamics in Two Large Ultraoligotrophic Antarctic Freshwater Lakes. Microbial Ecology, 2007, 53, 1-11.	1.4	62
40	Ice algal bloom development on the surface of the Greenland Ice Sheet. FEMS Microbiology Ecology, 2018, 94, .	1.3	62
41	Glacial ecosystems are essential to understanding biodiversity responses to glacier retreat. Nature Ecology and Evolution, 2020, 4, 686-687.	3.4	60
42	Microbial nitrogen cycling on the Greenland Ice Sheet. Biogeosciences, 2012, 9, 2431-2442.	1.3	59
43	Integrated â€˜Omicsâ€™, Targeted Metabolite and Single-cell Analyses of Arctic Snow Algae Functionality and Adaptability. Frontiers in Microbiology, 2015, 6, 1323.	1.5	59
44	Darkening of the Greenland Ice Sheet: Fungal Abundance and Diversity Are Associated With Algal Bloom. Frontiers in Microbiology, 2019, 10, 557.	1.5	58
45	Temperature Driven Membrane Lipid Adaptation in Glacial Psychrophilic Bacteria. Frontiers in Microbiology, 2020, 11, 824.	1.5	58
46	Heterotrophic bacterial and viral dynamics in Arctic freshwaters: results from a field study and nutrient-temperature manipulation experiments. Polar Biology, 2007, 30, 1407-1415.	0.5	57
47	The role of free and attached microorganisms in the decomposition of estuarine macrophyte detritus. Estuarine, Coastal and Shelf Science, 2003, 56, 197-201.	0.9	56
48	Hydrogen peroxide distribution, production, and decay in boreal lakes. Canadian Journal of Fisheries and Aquatic Sciences, 2004, 61, 1520-1527.	0.7	56
49	Stable microbial community composition on the Greenland Ice Sheet. Frontiers in Microbiology, 2015, 6, 193.	1.5	56
50	PRODUCTION OF INORGANIC CARBON FROM AQUATIC MACROPHYTES BY SOLAR RADIATION. Ecology, 1999, 80, 1852-1859.	1.5	55
51	Assimilation of microbial and plant carbon by active prokaryotic and fungal populations in glacial forefields. Soil Biology and Biochemistry, 2016, 98, 30-41.	4.2	55
52	Controls on the autochthonous production and respiration of organic matter in cryoconite holes on high Arctic glaciers. Journal of Geophysical Research, 2012, 117, .	3.3	51
53	Biological impact on Greenland's albedo. Nature Geoscience, 2014, 7, 691-691.	5.4	51
54	Mineral phosphorus drives glacier algal blooms on the Greenland Ice Sheet. Nature Communications, 2021, 12, 570.	5.8	50

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55	A genome and gene catalog of glacier microbiomes. Nature Biotechnology, 2022, 40, 1341-1348.	9.4	50
56	An improved estimate of microbially mediated carbon fluxes from the Greenland ice sheet. Journal of Glaciology, 2012, 58, 1098-1108.	1.1	49
57	Contrasts between the cryoconite and ice-marginal bacterial communities of Svalbard glaciers. Polar Research, 2013, 32, 19468.	1.6	46
58	Prokaryotic diversity in sediments beneath two polar glaciers with contrasting organic carbon substrates. Extremophiles, 2012, 16, 255-265.	0.9	45
59	Polar Marine Microorganisms and Climate Change. Advances in Microbial Physiology, 2016, 69, 187-215.	1.0	45
60	Spring thaw ionic pulses boost nutrient availability and microbial growth in entombed Antarctic Dry Valley cryoconite holes. Frontiers in Microbiology, 2014, 5, 694.	1.5	44
61	Eutrophication processes and trophic interactions in a shallow estuary: Preliminary results based on stable isotope analysis (Î´13C and Î´15N). Estuaries and Coasts, 2006, 29, 277-285.	1.0	43
62	The massâ€"area relationship within cryoconite holes and its implications for primary production. Annals of Glaciology, 2010, 51, 106-110.	2.8	43
63	Viral impacts on bacterial communities in Arctic cryoconite. Environmental Research Letters, 2013, 8, 045021.	2.2	43
64	Experimental evidence that microbial activity lowers the albedo of glaciers. Geochemical Perspectives Letters, 2016, , 106-116.	1.0	43
65	Phosphatase activity and organic phosphorus turnover on a high Arctic glacier. Biogeosciences, 2009, 6, 913-922.	1.3	41
66	Measuring rates of gross photosynthesis and net community production in cryoconite holes: a comparison of field methods. Annals of Glaciology, 2010, 51, 153-162.	2.8	41
67	Photochemical reactivity of aquatic macrophyte leachates: abiotic transformations and bacterial response. Aquatic Microbial Ecology, 2001, 24, 187-195.	0.9	40
68	Recovery of metallo-tolerant and antibiotic resistant psychrophilic bacteria from Siachen glacier, Pakistan. PLoS ONE, 2017, 12, e0178180.	1.1	39
69	Decreased bacterial growth on vascular plant detritus due to photochemical modification. Aquatic Microbial Ecology, 1999, 17, 159-165.	0.9	38
70	Microbial food webs in the dark: independence of lake plankton from recent algal production. Aquatic Microbial Ecology, 2005, 38, 113-123.	0.9	37
71	Influence of Humic Substances on Bacterial and Viral Dynamics in Freshwaters. Applied and Environmental Microbiology, 2004, 70, 4848-4854.	1.4	36
72	Microbial dynamics in a High Arctic glacier forefield: a combined field, laboratory, and modelling approach. Biogeosciences, 2016, 13, 5677-5696.	1.3	36

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73	Planetary Protection and Mars Special Regionsâ€"A Suggestion for Updating the Definition. Astrobiology, 2016, 16, 119-125.	1.5	36
74	Metagenomic insights into diazotrophic communities across Arctic glacier forefields. FEMS Microbiology Ecology, 2018, 94, .	1.3	36
75	Flexible genes establish widespread bacteriophage pan-genomes in cryoconite hole ecosystems. Nature Communications, 2020, 11, 4403.	5.8	36
76	Influence of the Hydrological Cycle on the Bacterioplankton of an Impacted Clear Water Amazonian Lake. Microbial Ecology, 1997, 34, 66-73.	1.4	33
77	High diversity and potential origins of T4-type bacteriophages on the surface of Arctic glaciers. Extremophiles, 2013, 17, 861-870.	0.9	33
78	Dissolved organic nutrients dominate melting surface ice of the Dark Zone (Greenland Ice Sheet). Biogeosciences, 2019, 16, 3283-3296.	1.3	33
79	Biological albedo reduction on ice sheets, glaciers, and snowfields. Earth-Science Reviews, 2021, 220, 103728.	4.0	30
80	Photochemical mineralization of dissolved organic carbon in lakes of differing pH and humic content. Archiv FÃ¼r Hydrobiologie, 2004, 160, 105-116.	1.1	25
81	Can the Bacterial Community of a High Arctic Glacier Surface Escape Viral Control?. Frontiers in Microbiology, 2016, 7, 956.	1.5	24
82	Benthic diatom flora in supraglacial habitats: a generic-level comparison. Annals of Glaciology, 2010, 51, 15-22.	2.8	23
83	Dissolved organic carbon transformations and microbial community response to variations in recharge waters in a shallow carbonate aquifer. Biogeochemistry, 2016, 129, 215-234.	1.7	23
84	Bacterial Dynamics in Supraglacial Habitats of the Greenland Ice Sheet. Frontiers in Microbiology, 2019, 10, 1366.	1.5	23
85	Stimulation of metazooplankton by photochemically modified dissolved organic matter. Limnology and Oceanography, 2006, 51, 101-108.	1.6	21
86	The influence of Antarctic subglacial volcanism on the global iron cycle during the Last Glacial Maximum. Nature Communications, 2017, 8, 15425.	5.8	21
87	Rapid development of anoxic niches in supraglacial ecosystems. Arctic, Antarctic, and Alpine Research, 2018, 50, .	0.4	20
88	The future of genomics in polar and alpine cyanobacteria. FEMS Microbiology Ecology, 2018, 94, .	1.3	19
89	Microbial Processing and Production of Aquatic Fluorescent Organic Matter in a Model Freshwater System. Water (Switzerland), 2019, 11, 10.	1.2	19
90	Physiological Capabilities of Cryoconite Hole Microorganisms. Frontiers in Microbiology, 2020, 11, 1783.	1.5	18

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91	Photoecology of the Antarctic cyanobacterium <i>Leptolyngbya </i>sp. BC1307 brought to light through community analysis, comparative genomics and in vitro photophysiology. Molecular Ecology, 2018, 27, 5279-5293.	2.0	14
92	Greenland bare-ice albedo from PROMICE automatic weather station measurements and Sentinel-3 satellite observations. Geological Survey of Denmark and Greenland Bulletin, 0, 47, .	2.0	14
93	Soil nitrogen response to shrub encroachment in a degrading semi-arid grassland. Biogeosciences, 2019, 16, 369-381.	1.3	13
94	Prokaryotic Diversity and Distribution in Different Habitats of an Alpine Rock Glacier-Pond System. Microbial Ecology, 2019, 78, 70-84.	1.4	12
95	Microbial and Biogeochemical Dynamics in Glacier Forefields Are Sensitive to Century-Scale Climate and Anthropogenic Change. Frontiers in Earth Science, 2017, 5, .	0.8	11
96	Linkages between geochemistry and microbiology in a proglacial terrain in the High Arctic. Annals of Glaciology, 2018, 59, 95-110.	2.8	11
97	SHIMMER (1.0): a novel mathematical model for microbial and biogeochemical dynamics in glacier forefield ecosystems. Geoscientific Model Development, 2015, 8, 3441-3470.	1.3	9
98	Virus dynamics in a large epishelf lake (<scp>B</scp>eaver <scp>L</scp>ake, <scp>A</scp>ntarctica). Freshwater Biology, 2013, 58, 1484-1493.	1.2	8
99	Bridging the divide: a model-data approach to Polar & Alpine Microbiology. FEMS Microbiology Ecology, 2016, 92, fiw015.	1.3	8
100	Macro-Nutrient Stoichiometry of Glacier Algae From the Southwestern Margin of the Greenland Ice Sheet. Frontiers in Plant Science, 2021, 12, 673614.	1.7	8
101	A Taxon-Wise Insight Into Rock Weathering and Nitrogen Fixation Functional Profiles of Proglacial Systems. Frontiers in Microbiology, 2021, 12, 627437.	1.5	7
102	Similar heterotrophic communities but distinct interactions supported by red and greenâ€snow algae in the Antarctic Peninsula. New Phytologist, 2022, 233, 1358-1368.	3.5	7
103	Factors influencing bacterial dynamics along a transect from supraglacial runoff to proglacial lakes of a high Arctic glacieri. FEMS Microbiology Ecology, 2007, 59, 762-762.	1.3	6
104	Cell membrane fatty acid and pigment composition of the psychrotolerant cyanobacterium Nodularia spumigena CHS1 isolated from Hopar glacier, Pakistan. Extremophiles, 2020, 24, 135-145.	0.9	6
105	Distribution of soil nitrogen and nitrogenase activity in the forefield of a High Arctic receding glacier. Annals of Glaciology, 2018, 59, 87-94.	2.8	5
106	Complete Genome and Plasmid Sequences of Salmonella enterica subsp. enterica Serovar Enteritidis PT1, Obtained from the Salmonella Reference Laboratory at Public Health England, Colindale, United Kingdom. Microbiology Resource Announcements, 2020, 9, .	0.3	4
107	Over Winter Microbial Processes in a Svalbard Snow Pack: An Experimental Approach. Frontiers in Microbiology, 2020, 11, 1029.	1.5	4
108	Dinoflagellate cyst assemblages as indicators of environmental conditions and shipping activities in coastal areas of the Black and Caspian Seas. Regional Studies in Marine Science, 2020, 39, 101472.	0.4	3

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109	Dissolved Nitrogen Speciation and Concentration During Spring Thaw in the Greenland Ice Sheet Dark Zone: Evidence for Microbial Activity. Frontiers in Earth Science, 2022, 10, .	0.8	2
110	Glacier clear ice bands indicate englacial channel microbial distribution. Journal of Glaciology, 2021, 67, 811-823.	1.1	1
111	Effect of temperature and salinity on the growth and cell size of the first cultures of Gymnodinium aureolum from the Black Sea. Botanica Marina, 2021, 64, 201-210.	0.6	1
112	Greenland Ice Sheet Surfaces Colonized by Microbial Communities Emit Volatile Organic Compounds. Frontiers in Microbiology, 0, 13, .	1.5	1