Patrick Crill

List of Publications by Year
in descending order

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182 papers	20,904 citations	8181 76 h-index	10734 138 g-index
223 all docs	223 docs citations	223 times ranked	15172 citing authors

#	Article	IF	Citations
1	The Global Methane Budget 2000â€“2017. Earth System Science Data, 2020, 12, 1561-1623.	9.9	1,199
2	Freshwater Methane Emissions Offset the Continental Carbon Sink. Science, 2011, 331, 50-50.	12.6	1,159
3	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	9.9	824
4	Sensitivity of Boreal Forest Carbon Balance to Soil Thaw. Science, 1998, 279, 214-217.	12.6	704
5	Carbon in Amazon Forests: Unexpected Seasonal Fluxes and Disturbance-Induced Losses. Science, 2003, 302, 1554-1557.	12.6	625
6	The Boreal Ecosystemâ€“Atmosphere Study (BOREAS): An Overview and Early Results from the 1994 Field Year. Bulletin of the American Meteorological Society, 1995, 76, 1549-1577.	3.3	547
7	BOREAS in 1997: Experiment overview, scientific results, and future directions. Journal of Geophysical Research, 1997, 102, 28731-28769.	3.3	436
8	Thawing sub-arctic permafrost: Effects on vegetation and methane emissions. Geophysical Research Letters, 2004, 31, .	4.0	423
9	A synthesis of methane emissions from 71 northern, temperate, and subtropical wetlands. Global Change Biology, 2014, 20, 2183-2197.	9.5	389
10	Host-linked soil viral ecology along a permafrost thaw gradient. Nature Microbiology, 2018, 3, 870-880.	13.3	372
11	Methane flux from Minnesota Peatlands. Global Biogeochemical Cycles, 1988, 2, 371-384.	4.9	349
12	Genome-centric view of carbon processing in thawing permafrost. Nature, 2018, 560, 49-54.	27.8	337
13	Methane dynamics regulated by microbial community response to permafrost thaw. Nature, 2014, 514, 478-481.	27.8	321
14	Seasonal patterns of methane uptake and carbon dioxide release by a temperate woodland soil. Global Biogeochemical Cycles, 1991, 5, 319-334.	4.9	302
15	Effect of a lowered water table on nitrous oxide fluxes from northern peatlands. Nature, 1993, 366, 51-53.	27.8	299
16	Environmental and physical controls on northern terrestrial methane emissions across permafrost zones. Global Change Biology, 2013, 19, 589-603.	9.5	275
17	A comparison of six methods for measuring soil-surface carbon dioxide fluxes. Journal of Geophysical Research, 1997, 102, 28771-28777.	3.3	274
18	Changes in peat chemistry associated with permafrost thaw increase greenhouse gas production. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5819-5824.	7.1	268

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19	Implications of temperature and sediment characteristics on methane formation and oxidation in lake sediments. Biogeochemistry, 2010, 100, 185-196.	3.5	242
20	Ecological controls on methane emissions from a Northern Peatland Complex in the zone of discontinuous permafrost, Manitoba, Canada. Global Biogeochemical Cycles, 1995, 9, 455-470.	4.9	236
21	Nitrous Oxide Emissions from Municipal Wastewater Treatment. Environmental Science & Technology, 1995, 29, 2352-2356.	10.0	235
22	Large loss of CO2 in winter observed across the northern permafrost region. Nature Climate Change, 2019, 9, 852-857.	18.8	225
23	Automated measurements of CO2 exchange at the moss surface of a black spruce forest. Tree Physiology, 1997, 17, 537-542.	3.1	223
24	Decadal vegetation changes in a northern peatland, greenhouse gas fluxes and net radiative forcing. Global Change Biology, 2006, 12, 2352-2369.	9.5	214
25	Methane emissions from tundra environments in the Yukonâ€Kuskokwim delta, Alaska. Journal of Geophysical Research, 1992, 97, 16645-16660.	3.3	202
26	Methane flux from the central Amazonian floodplain. Journal of Geophysical Research, 1988, 93, 1571-1582.	3.3	200
27	Quantifying the effect of oxidation on landfill methane emissions. Journal of Geophysical Research, 1996, 101, 16721-16729.	3.3	197
28	General CH4oxidation model and comparisons of CH4Oxidation in natural and managed systems. Global Biogeochemical Cycles, 2000, 14, 999-1019.	4.9	196
29	Seasonal patterns and controls on net ecosystem CO2exchange in a boreal peatland complex. Global Biogeochemical Cycles, 1998, 12, 703-714.	4.9	184
30	N 2 O emissions from humid tropical agricultural soils: effects of soil moisture, texture and nitrogen availability. Soil Biology and Biochemistry, 2001, 33, 1077-1093.	8.8	180
31	Methane Emissions from Pantanal, South America, during the Low Water Season: Toward More Comprehensive Sampling. Environmental Science & Technology, 2010, 44, 5450-5455.	10.0	178
32	Temperature and N fertilization effects on methane oxidation in a drained peatland soil. Soil Biology and Biochemistry, 1994, 26, 1331-1339.	8.8	177
33	Discovery of a novel methanogen prevalent in thawing permafrost. Nature Communications, 2014, 5, 3212.	12.8	170
34	Relationship between ecosystem productivity and photosynthetically active radiation for northern peatlands. Global Biogeochemical Cycles, 1998, 12, 115-126.	4.9	165
35	Title is missing!. Nutrient Cycling in Agroecosystems, 2001, 60, 159-175.	2.2	165
36	Fine root dynamics and trace gas fluxes in two lowland tropical forest soils. Global Change Biology, 2005, 11, 290-306.	9.5	165

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37	Peatland responses to varying interannual moisture conditions as measured by automatic CO2chambers. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	154
38	Emission of methane from plants. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 1347-1354.	2.6	149
39	Rapid degradation of atmospheric methyl bromide in soils. Nature, 1995, 377, 717-719.	27.8	146
40	Methane flux from the Amazon River floodplain: Emissions during rising water. Journal of Geophysical Research, 1990, 95, 16773-16788.	3.3	143
41	Multiyear measurements of ebullitive methane flux from three subarctic lakes. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1307-1321.	3.0	143
42	Tropospheric methane from an Amazonian floodplain lake. Journal of Geophysical Research, 1988, 93, 1564-1570.	3.3	142
43	Modelling temporal variability in the carbon balance of a spruce/moss boreal forest. Global Change Biology, 1996, 2, 343-366.	9.5	138
44	Modeling seasonal to annual carbon balance of Mer Bleue Bog, Ontario, Canada. Global Biogeochemical Cycles, 2002, 16, 4-1-4-21.	4.9	138
45	Spatioâ€temporal variability of lake CH₄ fluxes and its influence on annual whole lake emission estimates. Limnology and Oceanography, 2016, 61, S13.	3.1	133
46	Influence of water table on carbon dioxide, carbon monoxide, and methane fluxes from Taiga Bog microcosms. Global Biogeochemical Cycles, 1994, 8, 271-278.	4.9	131
47	Climate controls on temporal variability of methane flux from a poor fen in southeastern New Hampshire: Measurement and modeling. Global Biogeochemical Cycles, 1994, 8, 385-397.	4.9	130
48	Annual cycle of methane emission from a subarctic peatland. Journal of Geophysical Research, 2010, 115, .	3.3	128
49	Biased sampling of methane release from northern lakes: A problem for extrapolation. Geophysical Research Letters, 2016, 43, 1256-1262.	4.0	128
50	Fractionation of methane during oxidation in a temperate forested soil. Geochimica Et Cosmochimica Acta, 1994, 58, 1625-1633.	3.9	127
51	Seasonal variation of methane emissions from a temperate swamp. Biogeochemistry, 1989, 8, 55-71.	3.5	122
52	Soilâ€“Atmosphere Exchange of Nitrous Oxide, Nitric Oxide, Methane, and Carbon Dioxide in Logged and Undisturbed Forest in the Tapajos National Forest, Brazil. Earth Interactions, 2005, 9, 1-28.	1.5	122
53	Annual carbon gas budget for a subarctic peatland, Northern Sweden. Biogeosciences, 2010, 7, 95-108.	3.3	118
54	Biogeochemical cycling in an organic-rich coastal marine basin. 6. Temporal and spatial variations in sulfate reduction rates. Geochimica Et Cosmochimica Acta, 1987, 51, 1175-1186.	3.9	115

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55	Methane emissions from municipal wastewater treatment processes. Environmental Science & Technology, 1993, 27, 2472-2477.	10.0	114
56	Spectral reflectance measurements of boreal wetland and forest mosses. Journal of Geophysical Research, 1997, 102, 29483-29494.	3.3	110
57	Environmental factors influencing the variability of methane oxidation in temperate zone soils. Journal of Geophysical Research, 1995, 100, 9359.	3.3	109
58	Methanotrophy across a natural permafrost thaw environment. ISME Journal, 2018, 12, 2544-2558.	9.8	102
59	Methane production from bicarbonate and acetate in an anoxic marine sediment. Geochimica Et Cosmochimica Acta, 1986, 50, 2089-2097.	3.9	99
60	Carbon balance of a temperate poor fen. Global Biogeochemical Cycles, 1997, 11, 349-356.	4.9	99
61	Measurements of N2O from Composted Organic Wastes. Environmental Science & Technology, 1996, 30, 2519-2525.	10.0	98
62	A comparison of methane flux in a boreal landscape between a dry and a wet year. Global Biogeochemical Cycles, 2005, 19, .	4.9	98
63	Spatial and temporal fluctuations of methane production in anoxic coastal marine sediments. Limnology and Oceanography, 1983, 28, 1117-1130.	3.1	97
64	Energy input is primary controller of methane bubbling in subarctic lakes. Geophysical Research Letters, 2014, 41, 555-560.	4.0	96
65	Methane flux from Peltandra virginica: stable isotope tracing and chamber effects. Global Biogeochemical Cycles, 1992, 6, 15-31.	4.9	94
66	Methane transport mechanisms and isotopic fractionation in emergent macrophytes of an Alaskan tundra lake. Journal of Geophysical Research, 1992, 97, 16681-16688.	3.3	93
67	CO2and CH4flux between a boreal beaver pond and the atmosphere. Journal of Geophysical Research, 1997, 102, 29313-29319.	3.3	92
68	Timescale dependence of environmental and plant-mediated controls on CH4flux in a temperate fen. Journal of Geophysical Research, 2007, 112, .	3.3	91
69	Formation of H2 and CH4by weathering of olivine at temperatures between 30 and 70Â°C. Geochemical Transactions, 2011, 12, 6.	0.7	91
70	Impacts of paleohydrological changes on n-alkane biomarker compositions of a Holocene peat sequence in the eastern European Russian Arctic. Organic Geochemistry, 2011, 42, 1065-1075.	1.8	86
71	Variability and quasi-decadal changes in the methane budget over the period 2000â€“2012. Atmospheric Chemistry and Physics, 2017, 17, 11135-11161.	4.9	85
72	Winter methane dynamics in a temperate peatland. Global Biogeochemical Cycles, 1996, 10, 247-254.	4.9	84

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73	Soil respiration in a northeastern US temperate forest: a 22â€year synthesis. Ecosphere, 2013, 4, 1-28.	2.2	83
74	Methane fluxes from the sea to the atmosphere across the Siberian shelf seas. Geophysical Research Letters, 2016, 43, 5869-5877.	4.0	83
75	Multi-proxy study of soil organic matter dynamics in permafrost peat deposits reveal vulnerability to climate change in the European Russian Arctic. Chemical Geology, 2014, 368, 104-117.	3.3	81
76	Making methane visible. Nature Climate Change, 2016, 6, 426-430.	18.8	81
77	A source of methane from upland forests in the Brazilian Amazon. Geophysical Research Letters, 2006, 33, .	4.0	80
78	Sources of atmospheric methane in the south Florida environment. Global Biogeochemical Cycles, 1988, 2, 231-243.	4.9	79
79	Wetlands: A potentially significant source of atmospheric methyl bromide and methyl chloride. Geophysical Research Letters, 1999, 26, 2433-2435.	4.0	79
80	Microbial network, phylogenetic diversity and community membership in the active layer across a permafrost thaw gradient. Environmental Microbiology, 2017, 19, 3201-3218.	3.8	79
81	Net ecosystem productivity and its uncertainty in a diverse boreal peatland. Journal of Geophysical Research, 1999, 104, 27683-27692.	3.3	77
82	Elemental composition and optical properties reveal changes in dissolved organic matter along a permafrost thaw chronosequence in a subarctic peatland. Geochimica Et Cosmochimica Acta, 2016, 187, 123-140.	3.9	77
83	Net carbon accumulation of a highâ€latitude permafrost palsa mire similar to permafrostâ€free peatlands. Geophysical Research Letters, 2012, 39, .	4.0	76
84	Large methane emissions from a subarctic lake during spring thaw: Mechanisms and landscape significance. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2289-2305.	3.0	70
85	Methane and carbon dioxide exchanges between the atmosphere and northern boreal forest soils. Journal of Geophysical Research, 1997, 102, 29279-29288.	3.3	68
86	Controls on CH4flux from an Alaskan boreal wetland. Global Biogeochemical Cycles, 1996, 10, 287-296.	4.9	66
87	Intensive field measurements of nitrous oxide emissions from a tropical agricultural soil. Global Biogeochemical Cycles, 2000, 14, 85-95.	4.9	66
88	Rapid Consumption of Low Concentrations of Methyl Bromide by Soil Bacteria. Applied and Environmental Microbiology, 1998, 64, 1864-1870.	3.1	64
89	BVOC ecosystem flux measurements at a high latitude wetland site. Atmospheric Chemistry and Physics, 2010, 10, 1617-1634.	4.9	62
90	Mapping the degree of decomposition and thaw remobilization potential of soil organic matter in discontinuous permafrost terrain. Journal of Geophysical Research, 2012, 117, .	3.3	61

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91	Monitoring the Multi-Year Carbon Balance of a Subarctic Palsa Mire with Micrometeorological Techniques. Ambio, 2012, 41, 207-217.	5.5	60
92	Hydrogenation of organic matter as a terminal electron sink sustains high CO2:CH4 production ratios during anaerobic decomposition. Organic Geochemistry, 2017, 112, 22-32.	1.8	59
93	Carbon cycling in boreal wetlands: A comparison of three approaches. Journal of Geophysical Research, 1999, 104, 27673-27682.	3.3	58
94	High-frequency measurements of methane ebullition over a growing season at a temperate peatland site. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	57
95	Doubleâ€counting challenges the accuracy of highâ€latitude methane inventories. Geophysical Research Letters, 2016, 43, 12,569.	4.0	56
96	Net ecosystem CO2 exchange measured by autochambers during the snow-covered season at a temperate peatland. Hydrological Processes, 2002, 16, 3667-3682.	2.6	55
97	Interannual, seasonal, and diel variation in soil respiration relative to ecosystem respiration at a wetland to upland slope at Harvard Forest. Journal of Geophysical Research, 2010, 115, .	3.3	55
98	Year-round CH₄ and CO₂ flux dynamics in two contrasting freshwater ecosystems of the subarctic. Biogeosciences, 2017, 14, 5189-5216.	3.3	55
99	Controls on CH4and CO2emissions along two moisture gradients in the Canadian boreal zone. Journal of Geophysical Research, 1997, 102, 29261-29277.	3.3	54
100	Short-term nitrous oxide profile dynamics and emissions response to water, nitrogen and carbon additions in two tropical soils. Biology and Fertility of Soils, 2001, 34, 363-373.	4.3	54
101	Consumption of Tropospheric Levels of Methyl Bromide by C 1 Compound-Utilizing Bacteria and Comparison to Saturation Kinetics. Applied and Environmental Microbiology, 2001, 67, 5437-5443.	3.1	54
102	Bubbles trapped in arctic lake ice: Potential implications for methane emissions. Journal of Geophysical Research, 2011, 116, .	3.3	54
103	Shipborne eddy covariance observations of methane fluxes constrain Arctic sea emissions. Science Advances, 2020, 6, eaay7934.	10.3	53
104	Experimentally induced root mortality increased nitrous oxide emission from tropical forest soils. Geophysical Research Letters, 2003, 30, .	4.0	52
105	Radon fluxes in tropical forest ecosystems of Brazilian Amazonia: night-time CO2 net ecosystem exchange derived from radon and eddy covariance methods. Global Change Biology, 2004, 10, 618-629.	9.5	52
106	Quantifying the relative importance of lake emissions in the carbon budget of a subarctic catchment. Journal of Geophysical Research, 2010, 115, .	3.3	52
107	Measurement of the ¹³C isotopic signature of methane emissions from northern European wetlands. Global Biogeochemical Cycles, 2017, 31, 605-623.	4.9	52
108	Reduction of greenhouse gas emissions by wood ash application to a Picea abies (L.) Karst. forest on a drained organic soil. European Journal of Soil Science, 2010, 61, 734-744.	3.9	51

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109	CH4oxidation by tundra wetlands as measured by a selective inhibitor technique. Journal of Geophysical Research, 1998, 103, 29093-29106.	3.3	50
110	Climateâ€sensitive Controls on Large Spring Emissions of CH₄ and CO₂ From Northern Lakes. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2379-2399.	3.0	50
111	COSORE: A community database for continuous soil respiration and other soilâ€atmosphere greenhouse gas flux data. Global Change Biology, 2020, 26, 7268-7283.	9.5	50
112	The Borealâ€“Arctic Wetland and Lake Dataset (BAWLD). Earth System Science Data, 2021, 13, 5127-5149.	9.9	46
113	BAWLD-CH₄: a comprehensive dataset of methane fluxes from boreal and arctic ecosystems. Earth System Science Data, 2021, 13, 5151-5189.	9.9	44
114	Atmospheric methane removal by boreal plants. Geophysical Research Letters, 2012, 39, .	4.0	43
115	Direct determination of the airâ€sea CO₂ gas transfer velocity in Arctic sea ice regions. Geophysical Research Letters, 2017, 44, 3770-3778.	4.0	43
116	Modelling CH₄ emissions from arctic wetlands: effects of hydrological parameterization. Biogeosciences, 2008, 5, 111-121.	3.3	42
117	Constraining the rate and extent of mantle serpentinization from seismic and petrological data: implications for chemosynthesis and tectonic processes. Geofluids, 2005, 5, 153-164.	0.7	41
118	Total hydrocarbon flux dynamics at a subarctic mire in northern Sweden. Journal of Geophysical Research, 2008, 113, .	3.3	41
119	Calculations of automatic chamber flux measurements of methane and carbon dioxide using short time series of concentrations. Biogeosciences, 2016, 13, 903-912.	3.3	41
120	Methane dynamics of a northern boreal beaver pond. Ecoscience, 1999, 6, 577-586.	1.4	38
121	Ecosystem modeling of methane and carbon dioxide fluxes for boreal forest sites. Canadian Journal of Forest Research, 2001, 31, 208-223.	1.7	38
122	Automated Flux Chamber for Investigating Gas Flux at Waterâ€“Air Interfaces. Environmental Science & Technology, 2013, 47, 968-975.	10.0	38
123	Partitioning of the net <scp>CO</scp>₂ exchange using an automated chamber system reveals plant phenology as key control of production and respiration fluxes in a boreal peatland. Global Change Biology, 2018, 24, 3436-3451.	9.5	38
124	The Arctic Carbon Cycle and Its Response to Changing Climate. Current Climate Change Reports, 2021, 7, 14-34.	8.6	38
125	The importance of episodic events in controlling the flux of methane from an anoxic basin. Global Biogeochemical Cycles, 1993, 7, 491-507.	4.9	36
126	Net Ecosystem Exchange of Carbon dioxide in a Temperate Poor Fen: a Comparison of Automated and Manual Chamber Techniques. Biogeochemistry, 2005, 76, 21-45.	3.5	36

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127	Sediment Characteristics and Methane Ebullition in Three Subarctic Lakes. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2399-2411.	3.0	36
128	Effect of the 2018 European drought on methane and carbon dioxide exchange of northern mire ecosystems. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190517.	4.0	34
129	Non-methane volatile organic compound flux from a subarctic mire in Northern Sweden. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 226.	1.6	33
130	Evidence of oxygenic phototrophy in ancient phosphatic stromatolites from the Paleoproterozoic Vindhyan and Aravalli Supergroups, India. Geobiology, 2018, 16, 139-159.	2.4	31
131	Amazon Capims (floating grassmats): A source of ¹³C enriched methane to the troposphere. Geophysical Research Letters, 1989, 16, 799-802.	4.0	29
132	Mass fluxes and isofluxes of methane (CH₄) at a New Hampshire fen measured by a continuous wave quantum cascade laser spectrometer. Journal of Geophysical Research, 2012, 117, .	3.3	28
133	Ecosystem modeling of methane and carbon dioÃ—ide fluÃ—es for boreal forest sites. Canadian Journal of Forest Research, 2001, 31, 208-223.	1.7	28
134	Volatile organic compound fluxes in a subarctic peatland and lake. Atmospheric Chemistry and Physics, 2020, 20, 13399-13416.	4.9	28
135	Winter methane dynamics beneath ice and in snow in a temperate poor fen. Hydrological Processes, 1995, 9, 947-956.	2.6	27
136	High Resolution Mapping of Peatland Hydroperiod at a High-Latitude Swedish Mire. Remote Sensing, 2012, 4, 1974-1994.	4.0	27
137	Assessing effects of permafrost thaw on C fluxes based on multiyear modeling across a permafrost thaw gradient at Stordalen, Sweden. Biogeosciences, 2014, 11, 4753-4770.	3.3	27
138	Longâ€Term Measurements of Methane Ebullition From Thaw Ponds. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2208-2221.	3.0	27
139	Clumped Isotopes Link Older Carbon Substrates With Slower Rates of Methanogenesis in Northern Lakes. Geophysical Research Letters, 2020, 47, e2019GL086756.	4.0	27
140	Climateâ€forced changes in available energy and methane bubbling from subarctic lakes. Geophysical Research Letters, 2015, 42, 1936-1942.	4.0	25
141	Short-term effects of thinning, clear-cutting and stump harvesting on methane exchange in a boreal forest. Biogeosciences, 2014, 11, 6095-6105.	3.3	24
142	Soil incubations reproduce field methane dynamics in a subarctic wetland. Biogeochemistry, 2015, 126, 241-249.	3.5	24
143	Methane Production Pathway Regulated Proximally by Substrate Availability and Distally by Temperature in a Highâ€Latitude Mire Complex. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3057-3074.	3.0	24
144	An estimate of the uptake of atmospheric methyl bromide by agricultural soils. Geophysical Research Letters, 1999, 26, 727-730.	4.0	23

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145	Using ship-borne observations of methane isotopic ratio in the Arctic Ocean to understand methane sources in the Arctic. Atmospheric Chemistry and Physics, 2020, 20, 3987-3998.	4.9	23
146	Delineating northern peatlands using Sentinel-1 time series and terrain indices from local and regional digital elevation models. Remote Sensing of Environment, 2019, 231, 111252.	11.0	22
147	Drivers of diffusive CH₄ emissions from shallow subarctic lakes on daily to multi-year timescales. Biogeosciences, 2020, 17, 1911-1932.	3.3	22
148	Bimodal diel pattern in peatland ecosystem respiration rebuts uniform temperature response. Nature Communications, 2020, 11, 4255.	12.8	21
149	Detectability of Arctic methane sources at six sites performing continuous atmospheric measurements. Atmospheric Chemistry and Physics, 2017, 17, 8371-8394.	4.9	20
150	Whither methane in the IPCC process?. Nature Climate Change, 2017, 7, 678-680.	18.8	19
151	Large carbon cycle sensitivities to climate across a permafrost thaw gradient in subarctic Sweden. Cryosphere, 2019, 13, 647-663.	3.9	19
152	Hysteretic temperature sensitivity of wetland CH₄ fluxes explained by substrate availability and microbial activity. Biogeosciences, 2020, 17, 5849-5860.	3.3	19
153	Atmospheric methane measurements in central New England: An analysis of the long-term trend and the seasonal and diurnal cycles. Journal of Geophysical Research, 1998, 103, 10621-10630.	3.3	18
154	Adding stable carbon isotopes improves model representation of the role of microbial communities in peatland methane cycling. Journal of Advances in Modeling Earth Systems, 2017, 9, 1412-1430.	3.8	18
155	Determination of Atmospheric Methyl Bromide by Cryotrapping-Gas Chromatography and Application to Soil Kinetic Studies Using a Dynamic Dilution System. Analytical Chemistry, 1996, 68, 899-903.	6.5	17
156	Stable bromine isotopic composition of atmospheric CH₃Br. Tellus, Series B: Chemical and Physical Meteorology, 2022, 65, 21040.	1.6	17
157	Methane exchange in a boreal forest estimated by gradient method. Tellus, Series B: Chemical and Physical Meteorology, 2022, 67, 26688.	1.6	16
158	Investigating the influence of two different flow routing algorithms on soilâ€“waterâ€“vegetation interactions using the dynamic ecosystem model LPJâ€GUESS. Ecohydrology, 2015, 8, 570-583.	2.4	16
159	Ideas and perspectives: A strategic assessment of methane and nitrous oxide measurements in the marine environment. Biogeosciences, 2020, 17, 5809-5828.	3.3	16
160	Controls on the seasonal exchange of CH3Br in temperate peatlands. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	15
161	Diverse sediment microbiota shape methane emission temperature sensitivity in Arctic lakes. Nature Communications, 2021, 12, 5815.	12.8	15
162	Plant organic matter inputs exert a strong control on soil organic matter decomposition in a thawing permafrost peatland. Science of the Total Environment, 2022, 820, 152757.	8.0	15

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163	Production of methyl bromide in a temperate forest soil. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	14
164	Temperature Proxies as a Solution to Biased Sampling of Lake Methane Emissions. Geophysical Research Letters, 2020, 47, e2020GL088647.	4.0	14
165	Climate dependent diatom production is preserved in biogenic Si isotope signatures. Biogeosciences, 2011, 8, 3491-3499.	3.3	12
166	A call for international soil experiment networks for studying, predicting, and managing global change impacts. Soil, 2015, 1, 575-582.	4.9	12
167	Technical note: Greenhouse gas flux studies: an automated online system for gas emission measurements in aquatic environments. Hydrology and Earth System Sciences, 2020, 24, 3417-3430.	4.9	11
168	Microbial lid on subsea methane. Nature Climate Change, 2015, 5, 723-724.	18.8	10
169	Coupling plant litter quantity to a novel metric for litter quality explains C storage changes in a thawing permafrost peatland. Global Change Biology, 2021, , .	9.5	8
170	Permafrost thaw driven changes in hydrology and vegetation cover increase trace gas emissions and climate forcing in Stordalen Mire from 1970 to 2014. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210022.	3.4	8
171	Stable Methane Isotopologues From Northern Lakes Suggest That Ebullition Is Dominated by Subâ€Lake Scale Processes. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005601.	3.0	7
172	A High-Volume Cryosampler and Sample Purification System for Bromine Isotope Studies of Methyl Bromide*. Journal of Atmospheric and Oceanic Technology, 2013, 30, 2095-2107.	1.3	6
173	The IsoGenie database: an interdisciplinary data management solution for ecosystems biology and environmental research. PeerJ, 0, 8, e9467.	2.0	5
174	Field-scale CH₄ emission at a subarctic mire with heterogeneous permafrost thaw status. Biogeosciences, 2021, 18, 5811-5830.	3.3	5
175	Carbon Accumulation, Flux, and Fate in Stordalen Mire, a Permafrost Peatland in Transition. Global Biogeochemical Cycles, 2022, 36, .	4.9	5
176	Assessment of the theoretical limit in instrumental detectability of northern high-latitude methane sources using <i>Î´</i>¹³C_{CH4} atmospheric signals. Atmospheric Chemistry and Physics, 2019, 19, 12141-12161.	4.9	4
177	Latitudinal differences in methane fluxes from natural wetlands. SIL Communications 1953-1996, 1996, 25, 163-171.	0.1	3
178	Technical note: A simple approach for efficient collection of field reference data for calibrating remote sensing mapping of northern wetlands. Biogeosciences, 2018, 15, 1549-1557.	3.3	2
179	Comment on â€œUnderstanding the Permafrostâ€“Hydrate System and Associated Methane Releases in the East Siberian Arctic Shelfâ€• Geosciences (Switzerland), 2019, 9, 384.	2.2	1
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