

Patrick Crill

List of Publications by Year in Descending Order

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Version: 2024-04-28

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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.

188
papers

16,168
citations

71
h-index

124
g-index

223
ext. papers

18,430
ext. citations

8
avg. IF

6.26
L-index

#	Paper	IF	Citations
188	Plant organic matter inputs exert a strong control on soil organic matter decomposition in a thawing permafrost peatland.. <i>Science of the Total Environment</i> , 2022 , 820, 152757	10.2	4
187	Permafrost thaw driven changes in hydrology and vegetation cover increase trace gas emissions and climate forcing in Stordalen Mire from 1970 to 2014. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022 , 380, 20210022	3	1
186	BAWLD-CH ₄ : a comprehensive dataset of methane fluxes from boreal and arctic ecosystems. <i>Earth System Science Data</i> , 2021 , 13, 5151-5189	10.5	8
185	The BorealArctic Wetland and Lake Dataset (BAWLD). <i>Earth System Science Data</i> , 2021 , 13, 5127-5149	10.5	10
184	Coupling plant litter quantity to a novel metric for litter quality explains C storage changes in a thawing permafrost peatland. <i>Global Change Biology</i> , 2021 ,	11.4	2
183	Diverse sediment microbiota shape methane emission temperature sensitivity in Arctic lakes. <i>Nature Communications</i> , 2021 , 12, 5815	17.4	3
182	Field-scale CH ₄ emission at a subarctic mire with heterogeneous permafrost thaw status. <i>Biogeosciences</i> , 2021 , 18, 5811-5830	4.6	1
181	The Arctic Carbon Cycle and Its Response to Changing Climate. <i>Current Climate Change Reports</i> , 2021 , 7, 14-34	9	19
180	Stable Methane Isotopologues From Northern Lakes Suggest That Ebullition Is Dominated by Sub-Lake Scale Processes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020 , 125, e2019JG005601	3.7	2
179	Effect of the 2018 European drought on methane and carbon dioxide exchange of northern mire ecosystems. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020 , 375, 20190517	5.8	16
178	Temperature Proxies as a Solution to Biased Sampling of Lake Methane Emissions. <i>Geophysical Research Letters</i> , 2020 , 47, e2020GL088647	4.9	6
177	Using ship-borne observations of methane isotopic ratio in the Arctic Ocean to understand methane sources in the Arctic. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 3987-3998	6.8	8
176	Clumped Isotopes Link Older Carbon Substrates With Slower Rates of Methanogenesis in Northern Lakes. <i>Geophysical Research Letters</i> , 2020 , 47, e2019GL086756	4.9	16
175	Shipborne eddy covariance observations of methane fluxes constrain Arctic sea emissions. <i>Science Advances</i> , 2020 , 6, eaay7934	14.3	23
174	Technical note: Greenhouse gas flux studies: an automated online system for gas emission measurements in aquatic environments. <i>Hydrology and Earth System Sciences</i> , 2020 , 24, 3417-3430	5.5	4
173	Volatile organic compound fluxes in a subarctic peatland and lake. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 13399-13416	6.8	12
172	Ideas and perspectives: A strategic assessment of methane and nitrous oxide measurements in the marine environment. <i>Biogeosciences</i> , 2020 , 17, 5809-5828	4.6	7

171	Hysteretic temperature sensitivity of wetland CH ₄ fluxes explained by substrate availability and microbial activity. <i>Biogeosciences</i> , 2020 , 17, 5849-5860	4.6	8
170	The Global Methane Budget 2000–2017. <i>Earth System Science Data</i> , 2020 , 12, 1561-1623	10.5	463
169	COSORE: A community database for continuous soil respiration and other soil-atmosphere greenhouse gas flux data. <i>Global Change Biology</i> , 2020 , 26, 7268-7283	11.4	22
168	Bimodal diel pattern in peatland ecosystem respiration rebuts uniform temperature response. <i>Nature Communications</i> , 2020 , 11, 4255	17.4	9
167	Drivers of diffusive CH ₄ emissions from shallow subarctic lakes on daily to multi-year timescales. <i>Biogeosciences</i> , 2020 , 17, 1911-1932	4.6	12
166	Comment on 'Understanding the Permafrost Hydrate System and Associated Methane Releases in the East Siberian Arctic Shelf'. <i>Geosciences (Switzerland)</i> , 2019 , 9, 384	2.7	1
165	Long-Term Measurements of Methane Ebullition From Thaw Ponds. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019 , 124, 2208-2221	3.7	16
164	Delineating northern peatlands using Sentinel-1 time series and terrain indices from local and regional digital elevation models. <i>Remote Sensing of Environment</i> , 2019 , 231, 111252	13.2	15
163	Climate-Sensitive Controls on Large Spring Emissions of CH ₄ and CO ₂ From Northern Lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019 , 124, 2379-2399	3.7	28
162	Methane Production Pathway Regulated Proximally by Substrate Availability and Distally by Temperature in a High-Latitude Mire Complex. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019 , 124, 3057-3074	3.7	16
161	Large carbon cycle sensitivities to climate across a permafrost thaw gradient in subarctic Sweden. <i>Cryosphere</i> , 2019 , 13, 647-663	5.5	14
160	Assessment of the theoretical limit in instrumental detectability of northern high-latitude methane sources using $\delta^{13}C_{CH_4}$ atmospheric signals. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 12141-12161	6.8	2
159	Large loss of CO in winter observed across the northern permafrost region.. <i>Nature Climate Change</i> , 2019 , 9, 852-857	21.4	112
158	Evidence of oxygenic phototrophy in ancient phosphatic stromatolites from the Paleoproterozoic Vindhyan and Aravalli Supergroups, India. <i>Geobiology</i> , 2018 , 16, 139-159	4.3	19
157	Partitioning of the net CO exchange using an automated chamber system reveals plant phenology as key control of production and respiration fluxes in a boreal peatland. <i>Global Change Biology</i> , 2018 , 24, 3436-3451	11.4	22
156	Methanotrophy across a natural permafrost thaw environment. <i>ISME Journal</i> , 2018 , 12, 2544-2558	11.9	71
155	Genome-centric view of carbon processing in thawing permafrost. <i>Nature</i> , 2018 , 560, 49-54	50.4	169
154	Host-linked soil viral ecology along a permafrost thaw gradient. <i>Nature Microbiology</i> , 2018 , 3, 870-880	26.6	182

153	Sediment Characteristics and Methane Ebullition in Three Subarctic Lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018 , 123, 2399-2411	3.7	21
152	Technical note: A simple approach for efficient collection of field reference data for calibrating remote sensing mapping of northern wetlands. <i>Biogeosciences</i> , 2018 , 15, 1549-1557	4.6	2
151	Measurement of the ¹³ C isotopic signature of methane emissions from northern European wetlands. <i>Global Biogeochemical Cycles</i> , 2017 , 31, 605-623	5.9	36
150	Direct determination of the air-sea CO ₂ gas transfer velocity in Arctic sea ice regions. <i>Geophysical Research Letters</i> , 2017 , 44, 3770-3778	4.9	26
149	Microbial network, phylogenetic diversity and community membership in the active layer across a permafrost thaw gradient. <i>Environmental Microbiology</i> , 2017 , 19, 3201-3218	5.2	52
148	Adding stable carbon isotopes improves model representation of the role of microbial communities in peatland methane cycling. <i>Journal of Advances in Modeling Earth Systems</i> , 2017 , 9, 1412-1430	7.1	14
147	Year-round CH ₄ and CO ₂ flux dynamics in two contrasting freshwater ecosystems of the subarctic. <i>Biogeosciences</i> , 2017 , 14, 5189-5216	4.6	39
146	Detectability of Arctic methane sources at six sites performing continuous atmospheric measurements 2017 ,		1
145	Hydrogenation of organic matter as a terminal electron sink sustains high CO ₂ :CH ₄ production ratios during anaerobic decomposition. <i>Organic Geochemistry</i> , 2017 , 112, 22-32	3.1	29
144	Detectability of Arctic methane sources at six sites performing continuous atmospheric measurements. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 8371-8394	6.8	15
143	Variability and quasi-decadal changes in the methane budget over the period 2000-2012. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 11135-11161	6.8	69
142	Variability and quasi-decadal changes in the methane budget over the period 2000-2012 2017 ,		2
141	Making methane visible. <i>Nature Climate Change</i> , 2016 , 6, 426-430	21.4	56
140	The global methane budget 2000-2012. <i>Earth System Science Data</i> , 2016 , 8, 697-751	10.5	641
139	Calculations of automatic chamber flux measurements of methane and carbon dioxide using short time series of concentrations. <i>Biogeosciences</i> , 2016 , 13, 903-912	4.6	30
138	Spatio-temporal variability of lake CH ₄ fluxes and its influence on annual whole lake emission estimates. <i>Limnology and Oceanography</i> , 2016 , 61, S13-S26	4.8	95
137	Biased sampling of methane release from northern lakes: A problem for extrapolation. <i>Geophysical Research Letters</i> , 2016 , 43, 1256-1262	4.9	93
136	Methane fluxes from the sea to the atmosphere across the Siberian shelf seas. <i>Geophysical Research Letters</i> , 2016 , 43, 5869-5877	4.9	60

135	Double-counting challenges the accuracy of high-latitude methane inventories. <i>Geophysical Research Letters</i> , 2016 , 43, 12,569	4.9	42
134	Elemental composition and optical properties reveal changes in dissolved organic matter along a permafrost thaw chronosequence in a subarctic peatland. <i>Geochimica Et Cosmochimica Acta</i> , 2016 , 187, 123-140	5.5	45
133	Soil incubations reproduce field methane dynamics in a subarctic wetland. <i>Biogeochemistry</i> , 2015 , 126, 241-249	3.8	17
132	Climate-forced changes in available energy and methane bubbling from subarctic lakes. <i>Geophysical Research Letters</i> , 2015 , 42, 1936-1942	4.9	20
131	Large methane emissions from a subarctic lake during spring thaw: Mechanisms and landscape significance. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015 , 120, 2289-2305	3.7	56
130	Methane exchange in a boreal forest estimated by gradient method. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2015 , 67, 26688	3.3	13
129	Investigating the influence of two different flow routing algorithms on soil-water-vegetation interactions using the dynamic ecosystem model LPJ-GUESS. <i>Ecohydrology</i> , 2015 , 8, 570-583	2.5	10
128	A call for international soil experiment networks for studying, predicting, and managing global change impacts. <i>Soil</i> , 2015 , 1, 575-582	5.8	11
127	Multi-proxy study of soil organic matter dynamics in permafrost peat deposits reveal vulnerability to climate change in the European Russian Arctic. <i>Chemical Geology</i> , 2014 , 368, 104-117	4.2	64
126	A synthesis of methane emissions from 71 northern, temperate, and subtropical wetlands. <i>Global Change Biology</i> , 2014 , 20, 2183-97	11.4	291
125	Methane dynamics regulated by microbial community response to permafrost thaw. <i>Nature</i> , 2014 , 514, 478-81	50.4	240
124	Discovery of a novel methanogen prevalent in thawing permafrost. <i>Nature Communications</i> , 2014 , 5, 3212	17.4	131
123	Changes in peat chemistry associated with permafrost thaw increase greenhouse gas production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 5819-24	11.5	205
122	Short-term effects of thinning, clear-cutting and stump harvesting on methane exchange in a boreal forest. <i>Biogeosciences</i> , 2014 , 11, 6095-6105	4.6	22
121	Energy input is primary controller of methane bubbling in subarctic lakes. <i>Geophysical Research Letters</i> , 2014 , 41, 555-560	4.9	73
120	Assessing effects of permafrost thaw on C fluxes based on multiyear modeling across a permafrost thaw gradient at Stordalen, Sweden. <i>Biogeosciences</i> , 2014 , 11, 4753-4770	4.6	24
119	Automated flux chamber for investigating gas flux at water-air interfaces. <i>Environmental Science & Technology</i> , 2013 , 47, 968-75	10.3	29
118	Environmental and physical controls on northern terrestrial methane emissions across permafrost zones. <i>Global Change Biology</i> , 2013 , 19, 589-603	11.4	231

117	Stable bromine isotopic composition of atmospheric CH ₃ Br. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2013 , 65, 21040	3.3	17
116	A High-Volume Cryosampler and Sample Purification System for Bromine Isotope Studies of Methyl Bromide*. <i>Journal of Atmospheric and Oceanic Technology</i> , 2013 , 30, 2095-2107	2	6
115	Soil respiration in a northeastern US temperate forest: a 22-year synthesis. <i>Ecosphere</i> , 2013 , 4, art140	3.1	61
114	Multiyear measurements of ebullitive methane flux from three subarctic lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013 , 118, 1307-1321	3.7	115
113	Monitoring the multi-year carbon balance of a subarctic tundra mire with micrometeorological techniques. <i>Ambio</i> , 2012 , 41 Suppl 3, 207-17	6.5	48
112	Net carbon accumulation of a high-latitude permafrost tundra mire similar to permafrost-free peatlands. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	66
111	Mass fluxes and isofluxes of methane (CH ₄) at a New Hampshire fen measured by a continuous wave quantum cascade laser spectrometer. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		25
110	High Resolution Mapping of Peatland Hydroperiod at a High-Latitude Swedish Mire. <i>Remote Sensing</i> , 2012 , 4, 1974-1994	5	22
109	Mapping the degree of decomposition and thaw remobilization potential of soil organic matter in discontinuous permafrost terrain. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		54
108	Atmospheric methane removal by boreal plants. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	28
107	High-frequency measurements of methane ebullition over a growing season at a temperate peatland site. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	43
106	Impacts of paleohydrological changes on n-alkane biomarker compositions of a Holocene peat sequence in the eastern European Russian Arctic. <i>Organic Geochemistry</i> , 2011 , 42, 1065-1075	3.1	72
105	Freshwater methane emissions offset the continental carbon sink. <i>Science</i> , 2011 , 331, 50	33.3	903
104	Bubbles trapped in arctic lake ice: Potential implications for methane emissions. <i>Journal of Geophysical Research</i> , 2011 , 116,		46
103	Climate dependent diatom production is preserved in biogenic Si isotope signatures. <i>Biogeosciences</i> , 2011 , 8, 3491-3499	4.6	9
102	Formation of H ₂ and CH ₄ by weathering of olivine at temperatures between 30 and 70°C. <i>Geochemical Transactions</i> , 2011 , 12, 6	3	72
101	Hydrology and Biogeochemistry of Boreal Forests. <i>Ecological Studies</i> , 2011 , 321-339	1.1	
100	Reduction of greenhouse gas emissions by wood ash application to a <i>Picea abies</i> (L.) Karst. forest on a drained organic soil. <i>European Journal of Soil Science</i> , 2010 , 61, 734-744	3.4	44

99	Annual carbon gas budget for a subarctic peatland, Northern Sweden. <i>Biogeosciences</i> , 2010 , 7, 95-108	4.6	101
98	Methane emissions from Pantanal, South America, during the low water season: toward more comprehensive sampling. <i>Environmental Science & Technology</i> , 2010 , 44, 5450-5	10.3	150
97	Quantifying the relative importance of lake emissions in the carbon budget of a subarctic catchment. <i>Journal of Geophysical Research</i> , 2010 , 115,		43
96	Interannual, seasonal, and diel variation in soil respiration relative to ecosystem respiration at a wetland to upland slope at Harvard Forest. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		48
95	Annual cycle of methane emission from a subarctic peatland. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		111
94	BVOC ecosystem flux measurements at a high latitude wetland site. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 1617-1634	6.8	49
93	Implications of temperature and sediment characteristics on methane formation and oxidation in lake sediments. <i>Biogeochemistry</i> , 2010 , 100, 185-196	3.8	183
92	Emission of methane from plants. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2009 , 276, 1347-1354	4.4	122
91	Total hydrocarbon flux dynamics at a subarctic mire in northern Sweden. <i>Journal of Geophysical Research</i> , 2008 , 113,		34
90	Modelling CH ₄ emissions from arctic wetlands: effects of hydrological parameterization. <i>Biogeosciences</i> , 2008 , 5, 111-121	4.6	35
89	Non-methane volatile organic compound flux from a subarctic mire in Northern Sweden. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2008 , 60, 226-237	3.3	28
88	Timescale dependence of environmental and plant-mediated controls on CH ₄ flux in a temperate fen. <i>Journal of Geophysical Research</i> , 2007 , 112,		75
87	A source of methane from upland forests in the Brazilian Amazon. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	70
86	Decadal vegetation changes in a northern peatland, greenhouse gas fluxes and net radiative forcing. <i>Global Change Biology</i> , 2006 , 12, 2352-2369	11.4	190
85	Controls on the seasonal exchange of CH ₃ Br in temperate peatlands. <i>Global Biogeochemical Cycles</i> , 2005 , 19, n/a-n/a	5.9	14
84	A comparison of methane flux in a boreal landscape between a dry and a wet year. <i>Global Biogeochemical Cycles</i> , 2005 , 19,	5.9	87
83	Constraining the rate and extent of mantle serpentinization from seismic and petrological data: implications for chemosynthesis and tectonic processes. <i>Geofluids</i> , 2005 , 5, 153-164	1.5	35
82	Fine root dynamics and trace gas fluxes in two lowland tropical forest soils. <i>Global Change Biology</i> , 2005 , 11, 290-306	11.4	143

81	Net Ecosystem Exchange of Carbon dioxide in a Temperate Poor Fen: a Comparison of Automated and Manual Chamber Techniques. <i>Biogeochemistry</i> , 2005 , 76, 21-45	3.8	32
80	Soil-Atmosphere Exchange of Nitrous Oxide, Nitric Oxide, Methane, and Carbon Dioxide in Logged and Undisturbed Forest in the Tapajos National Forest, Brazil. <i>Earth Interactions</i> , 2005 , 9, 1-28	1.5	109
79	Radon fluxes in tropical forest ecosystems of Brazilian Amazonia: night-time CO ₂ net ecosystem exchange derived from radon and eddy covariance methods. <i>Global Change Biology</i> , 2004 , 10, 618-629	11.4	44
78	Thawing sub-arctic permafrost: Effects on vegetation and methane emissions. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	379
77	Peatland responses to varying interannual moisture conditions as measured by automatic CO ₂ chambers. <i>Global Biogeochemical Cycles</i> , 2003 , 17, n/a-n/a	5.9	130
76	Experimentally induced root mortality increased nitrous oxide emission from tropical forest soils. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	35
75	Production of methyl bromide in a temperate forest soil. <i>Geophysical Research Letters</i> , 2003 , 30, n/a-n/a	4.9	13
74	Carbon in Amazon forests: unexpected seasonal fluxes and disturbance-induced losses. <i>Science</i> , 2003 , 302, 1554-7	33.3	556
73	Net ecosystem CO ₂ exchange measured by autochambers during the snow-covered season at a temperate peatland. <i>Hydrological Processes</i> , 2002 , 16, 3667-3682	3.3	52
72	Modeling seasonal to annual carbon balance of Mer Bleue Bog, Ontario, Canada. <i>Global Biogeochemical Cycles</i> , 2002 , 16, 4-1-4-21	5.9	123
71	Short-term nitrous oxide profile dynamics and emissions response to water, nitrogen and carbon additions in two tropical soils. <i>Biology and Fertility of Soils</i> , 2001 , 34, 363-373	6.1	48
70	Comparing a process-based agro-ecosystem model to the IPCC methodology for developing a national inventory of N ₂ O emissions from arable lands in China. <i>Nutrient Cycling in Agroecosystems</i> , 2001 , 60, 159-175	3.3	140
69	Consumption of tropospheric levels of methyl bromide by C(1) compound-utilizing bacteria and comparison to saturation kinetics. <i>Applied and Environmental Microbiology</i> , 2001 , 67, 5437-43	4.8	45
68	N ₂ O emissions from humid tropical agricultural soils: effects of soil moisture, texture and nitrogen availability. <i>Soil Biology and Biochemistry</i> , 2001 , 33, 1077-1093	7.5	149
67	Ecosystem modeling of methane and carbon dioxide fluxes for boreal forest sites. <i>Canadian Journal of Forest Research</i> , 2001 , 31, 208-223	1.9	35
66	Ecosystem modeling of methane and carbon dioxide fluxes for boreal forest sites. <i>Canadian Journal of Forest Research</i> , 2001 , 31, 208-223	1.9	27
65	General CH ₄ oxidation model and comparisons of CH ₄ Oxidation in natural and managed systems. <i>Global Biogeochemical Cycles</i> , 2000 , 14, 999-1019	5.9	163
64	Intensive field measurements of nitrous oxide emissions from a tropical agricultural soil. <i>Global Biogeochemical Cycles</i> , 2000 , 14, 85-95	5.9	59

63	An estimate of the uptake of atmospheric methyl bromide by agricultural soils. <i>Geophysical Research Letters</i> , 1999 , 26, 727-730	4.9	19
62	Wetlands: A potentially significant source of atmospheric methyl bromide and methyl chloride. <i>Geophysical Research Letters</i> , 1999 , 26, 2433-2435	4.9	65
61	Net ecosystem productivity and its uncertainty in a diverse boreal peatland. <i>Journal of Geophysical Research</i> , 1999 , 104, 27683-27692		66
60	Carbon cycling in boreal wetlands: A comparison of three approaches. <i>Journal of Geophysical Research</i> , 1999 , 104, 27673-27682		52
59	Methane dynamics of a northern boreal beaver pond. <i>Ecoscience</i> , 1999 , 6, 577-586	1.1	32
58	CH ₄ oxidation by tundra wetlands as measured by a selective inhibitor technique. <i>Journal of Geophysical Research</i> , 1998 , 103, 29093-29106		43
57	Seasonal patterns and controls on net ecosystem CO ₂ exchange in a boreal peatland complex. <i>Global Biogeochemical Cycles</i> , 1998 , 12, 703-714	5.9	160
56	Atmospheric methane measurements in central New England: An analysis of the long-term trend and the seasonal and diurnal cycles. <i>Journal of Geophysical Research</i> , 1998 , 103, 10621-10630		16
55	Relationship between ecosystem productivity and photosynthetically active radiation for northern peatlands. <i>Global Biogeochemical Cycles</i> , 1998 , 12, 115-126	5.9	139
54	Sensitivity of boreal forest carbon balance to soil thaw. <i>Science</i> , 1998 , 279, 214-7	33.3	651
53	Rapid Consumption of Low Concentrations of Methyl Bromide by Soil Bacteria. <i>Applied and Environmental Microbiology</i> , 1998 , 64, 1864-70	4.8	49
52	Automated measurements of CO ₂ exchange at the moss surface of a black spruce forest. <i>Tree Physiology</i> , 1997 , 17, 537-542	4.2	202
51	Methane and carbon dioxide exchanges between the atmosphere and northern boreal forest soils. <i>Journal of Geophysical Research</i> , 1997 , 102, 29279-29288		59
50	Spectral reflectance measurements of boreal wetland and forest mosses. <i>Journal of Geophysical Research</i> , 1997 , 102, 29483-29494		85
49	BOREAS in 1997: Experiment overview, scientific results, and future directions. <i>Journal of Geophysical Research</i> , 1997 , 102, 28731-28769		367
48	Carbon balance of a temperate poor fen. <i>Global Biogeochemical Cycles</i> , 1997 , 11, 349-356	5.9	89
47	CO ₂ and CH ₄ flux between a boreal beaver pond and the atmosphere. <i>Journal of Geophysical Research</i> , 1997 , 102, 29313-29319		75
46	Controls on CH ₄ and CO ₂ emissions along two moisture gradients in the Canadian boreal zone. <i>Journal of Geophysical Research</i> , 1997 , 102, 29261-29277		47

45	A comparison of six methods for measuring soil-surface carbon dioxide fluxes. <i>Journal of Geophysical Research</i> , 1997 , 102, 28771-28777		224
44	Measurements of N ₂ O from Composted Organic Wastes. <i>Environmental Science & Technology</i> , 1996 , 30, 2519-2525	10.3	93
43	Determination of atmospheric methyl bromide by cryotrapping-gas chromatography and application to soil kinetic studies using a dynamic dilution system. <i>Analytical Chemistry</i> , 1996 , 68, 899-903	7.8	13
42	Controls on CH ₄ flux from an Alaskan boreal wetland. <i>Global Biogeochemical Cycles</i> , 1996 , 10, 287-296	5.9	51
41	Winter methane dynamics in a temperate peatland. <i>Global Biogeochemical Cycles</i> , 1996 , 10, 247-254	5.9	81
40	Quantifying the effect of oxidation on landfill methane emissions. <i>Journal of Geophysical Research</i> , 1996 , 101, 16721-16729		177
39	Latitudinal differences in methane fluxes from natural wetlands. <i>SIL Communications 1953-1996</i> , 1996 , 25, 163-171		
38	Modelling temporal variability in the carbon balance of a spruce/moss boreal forest. <i>Global Change Biology</i> , 1996 , 2, 343-366	11.4	122
37	Rapid degradation of atmospheric methyl bromide in soils. <i>Nature</i> , 1995 , 377, 717-719	50.4	132
36	The Boreal Ecosystem Atmosphere Study (BOREAS): An Overview and Early Results from the 1994 Field Year. <i>Bulletin of the American Meteorological Society</i> , 1995 , 76, 1549-1577	6.1	420
35	Ecological controls on methane emissions from a Northern Peatland Complex in the zone of discontinuous permafrost, Manitoba, Canada. <i>Global Biogeochemical Cycles</i> , 1995 , 9, 455-470	5.9	201
34	Nitrous oxide emissions from municipal wastewater treatment. <i>Environmental Science & Technology</i> , 1995 , 29, 2352-6	10.3	192
33	Environmental factors influencing the variability of methane oxidation in temperate zone soils. <i>Journal of Geophysical Research</i> , 1995 , 100, 9359		91
32	Winter methane dynamics beneath ice and in snow in a temperate poor fen. <i>Hydrological Processes</i> , 1995 , 9, 947-956	3.3	23
31	Fractionation of methane during oxidation in a temperate forested soil. <i>Geochimica Et Cosmochimica Acta</i> , 1994 , 58, 1625-1633	5.5	118
30	Influence of water table on carbon dioxide, carbon monoxide, and methane fluxes from Taiga Bog microcosms. <i>Global Biogeochemical Cycles</i> , 1994 , 8, 271-278	5.9	106
29	Climate controls on temporal variability of methane flux from a poor fen in southeastern New Hampshire: Measurement and modeling. <i>Global Biogeochemical Cycles</i> , 1994 , 8, 385-397	5.9	113
28	Temperature and N fertilization effects on methane oxidation in a drained peatland soil. <i>Soil Biology and Biochemistry</i> , 1994 , 26, 1331-1339	7.5	168

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21	Seasonal patterns of methane uptake and carbon dioxide release by a temperate woodland soil. <i>Global Biogeochemical Cycles</i> , 1991 , 5, 319-334	5.9	256
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10	BVOC ecosystem flux measurements at a high latitude wetland site		6

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