Torben R Christensen

List of Publications by Year
in descending order

140 papers	14,071 citations	20817 60 h-index	22166 113 g-index
168 all docs	168 docs citations	168 times ranked	12325 citing authors

#	Article	IF	Citations
1	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
2	Tundra permafrost thaw causes significant shifts in energy partitioning. Tellus, Series B: Chemical and Physical Meteorology, 2022, 68, 30467.	1.6	15
3	The ABCflux database: Arcticâ€“boreal CO₂ flux observations and ancillary information aggregated to monthly time steps across terrestrial ecosystems. Earth System Science Data, 2022, 14, 179-208.	9.9	22
4	Toward UAV-based methane emission mapping of Arctic terrestrial ecosystems. Science of the Total Environment, 2022, 819, 153161.	8.0	9
5	Radiation, soil water content, and temperature effects on carbon cycling in an alpine swamp meadow of the northeastern Qinghaiâ€“Tibetan Plateau. Biogeosciences, 2022, 19, 861-875.	3.3	10
6	Microbial Community Changes in 26,500-Year-Old Thawing Permafrost. Frontiers in Microbiology, 2022, 13, 787146.	3.5	6
7	Earlier snowmelt may lead to late season declines in plant productivity and carbon sequestration in Arctic tundra ecosystems. Scientific Reports, 2022, 12, 3986.	3.3	16
8	Multiple Ecosystem Effects of Extreme Weather Events in the Arctic. Ecosystems, 2021, 24, 122-136.	3.4	29
9	The missing pieces for better future predictions in subarctic ecosystems: A TornetrÃsk case study. Ambio, 2021, 50, 375-392.	5.5	6
10	Expert assessment of future vulnerability of the global peatland carbon sink. Nature Climate Change, 2021, 11, 70-77.	18.8	167
11	Statistical upscaling of ecosystem CO₂ fluxes across the terrestrial tundra and boreal domain: Regional patterns and uncertainties. Global Change Biology, 2021, 27, 4040-4059.	9.5	83
12	Climatic Factors Influencing the Anthrax Outbreak of 2016 in Siberia, Russia. EcoHealth, 2021, 18, 217-228.	2.0	21
13	Methane in Zackenberg Valley, NE Greenland: multidecadal growing season fluxes of a high-Arctic tundra. Biogeosciences, 2021, 18, 6093-6114.	3.3	5
14	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
15	Multi-year data-model evaluation reveals the importance of nutrient availability over climate in arctic ecosystem C dynamics. Environmental Research Letters, 2020, 15, 094007.	5.2	22
16	Ecosystem carbon response of an Arctic peatland to simulated permafrost thaw. Global Change Biology, 2019, 25, 1746-1764.	9.5	52
17	Evaluation of terrestrial pan-Arctic carbon cycling using a data-assimilation system. Earth System Dynamics, 2019, 10, 233-255.	7.1	21
18	Potential future methane emission hot spots in Greenland. Environmental Research Letters, 2019, 14, 035001.	5.2	8

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19	Key indicators of Arctic climate change: 1971â€“2017. Environmental Research Letters, 2019, 14, 045010.	5.2	471
20	Tracing the climate signal: mitigation of anthropogenic methane emissions can outweigh a large Arctic natural emission increase. Scientific Reports, 2019, 9, 1146.	3.3	22
21	Large loss of CO2 in winter observed across the northern permafrost region. Nature Climate Change, 2019, 9, 852-857.	18.8	225
22	The polar regions in a 2Â°C warmer world. Science Advances, 2019, 5, eaaw9883.	10.3	289
23	Plant Traits are Key Determinants in Buffering the Meteorological Sensitivity of Net Carbon Exchanges of Arctic Tundra. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2675-2694.	3.0	11
24	Methane and Global Environmental Change. Annual Review of Environment and Resources, 2018, 43, 165-192.	13.4	45
25	Postscript: The future of the Greenland Ecosystem Monitoring programme. Ambio, 2017, 46, 174-177.	5.5	1
26	Degradation potentials of dissolved organic carbon (DOC) from thawed permafrost peat. Scientific Reports, 2017, 7, 45811.	3.3	47
27	Increased nitrous oxide emissions from Arctic peatlands after permafrost thaw. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6238-6243.	7.1	119
28	Toward a statistical description of methane emissions from arctic wetlands. Ambio, 2017, 46, 70-80.	5.5	19
29	Foreword: Synthesis of the Greenland Ecosystem Monitoring program. Ambio, 2017, 46, 1-2.	5.5	19
30	A synthesis of the arctic terrestrial and marine carbon cycles under pressure from a dwindling cryosphere. Ambio, 2017, 46, 53-69.	5.5	56
31	Spatial variability of CO₂ uptake in polygonal tundra: assessing low-frequency disturbances in eddy covariance flux estimates. Biogeosciences, 2017, 14, 3157-3169.	3.3	25
32	Exchange of CO₂ in Arctic tundra: impacts of meteorological variations and biological disturbance. Biogeosciences, 2017, 14, 4467-4483.	3.3	37
33	A high arctic experience of uniting research and monitoring. Earth's Future, 2017, 5, 650-654.	6.3	16
34	Two years with extreme and little snowfall: effects on energy partitioning and surface energy exchange in a high-Arctic tundra ecosystem. Cryosphere, 2016, 10, 1395-1413.	3.9	32
35	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
36	Is the subarctic landscape still a carbon sink? Evidence from a detailed catchment balance. Geophysical Research Letters, 2016, 43, 1988-1995.	4.0	35

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37	Snowpack fluxes of methane and carbon dioxide from high Arctic tundra. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2886-2900.	3.0	26
38	GISâ€based Maps and Area Estimates of Northern Hemisphere Permafrost Extent during the Last Glacial Maximum. Permafrost and Periglacial Processes, 2016, 27, 6-16.	3.4	78
39	It's a gas. Nature Geoscience, 2016, 9, 647-648.	12.9	6
40	Focus on the impact of climate change on wetland ecosystems and carbon dynamics. Environmental Research Letters, 2016, 11, 100201.	5.2	27
41	Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. Environmental Research Letters, 2016, 11, 034014.	5.2	199
42	Methane emission bursts from permafrost environments during autumn freezeâ€in: New insights from groundâ€penetrating radar. Geophysical Research Letters, 2015, 42, 6732-6738.	4.0	30
43	Rising methane emissions from northern wetlands associated with sea ice decline. Geophysical Research Letters, 2015, 42, 7214-7222.	4.0	20
44	Carbon budget estimation of a subarctic catchment using a dynamic ecosystem model at high spatial resolution. Biogeosciences, 2015, 12, 2791-2808.	3.3	19
45	Controls of spatial and temporal variability in CH4 flux in a high arctic fen over three years. Biogeochemistry, 2015, 125, 21-35.	3.5	30
46	Large herbivore grazing affects the vegetation structure and greenhouse gas balance in a high arctic mire. Environmental Research Letters, 2015, 10, 045001.	5.2	50
47	The uncertain climate footprint of wetlands under human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4594-4599.	7.1	171
48	Assessing the spatial variability in peak season CO₂ exchange characteristics across the Arctic tundra using a light response curve parameterization. Biogeosciences, 2014, 11, 4897-4912.	3.3	20
49	Increased photosynthesis compensates for shorter growing season in subarctic tundraâ€”8Âyears of snow accumulation manipulations. Climatic Change, 2014, 127, 321-334.	3.6	20
50	Climate science: Understand Arctic methane variability. Nature, 2014, 509, 279-281.	27.8	20
51	Expert assessment of vulnerability of permafrost carbon to climate change. Climatic Change, 2013, 119, 359-374.	3.6	257
52	The impact of lower sea-ice extent on Arctic greenhouse-gas exchange. Nature Climate Change, 2013, 3, 195-202.	18.8	119
53	Modelling of growing season methane fluxes in a high-Arctic wet tundra ecosystem 1997â€“2010 using in situ and high-resolution satellite data. Tellus, Series B: Chemical and Physical Meteorology, 2013, 65, 19722.	1.6	24
54	Ecosystem change and stability over multiple decades in the Swedish subarctic: complex processes and multiple drivers. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120488.	4.0	140

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55	Rapid responses of permafrost and vegetation to experimentally increased snow cover in sub-arctic Sweden. Environmental Research Letters, 2013, 8, 035025.	5.2	110
56	Revisiting factors controlling methane emissions from high-Arctic tundra. Biogeosciences, 2013, 10, 5139-5158.	3.3	103
57	Effects of drought conditions on the carbon dioxide dynamics in a temperate peatland. Environmental Research Letters, 2012, 7, 045704.	5.2	91
58	Future vegetation changes in thawing subarctic mires and implications for greenhouse gas exchangeâ€"a regional assessment. Climatic Change, 2012, 115, 379-398.	3.6	29
59	High-resolution satellite data reveal an increase in peak growing season gross primary production in a high-Arctic wet tundra ecosystem 1992â€"2008. International Journal of Applied Earth Observation and Geoinformation, 2012, 18, 407-416.	2.8	31
60	Monitoring the Multi-Year Carbon Balance of a Subarctic Palsa Mire with Micrometeorological Techniques. Ambio, 2012, 41, 207-217.	5.5	60
61	Net carbon accumulation of a highâ€latitude permafrost palsa mire similar to permafrostâ€free peatlands. Geophysical Research Letters, 2012, 39, .	4.0	76
62	The Man, the Myth, the Legend: Professor Terry V. Callaghan and His 3M Concept. Ambio, 2012, 41, 175-177.	5.5	9
63	Environmental Monitoring and Research in the Abisko Areaâ€"An Overview. Ambio, 2012, 41, 178-186.	5.5	11
64	An assessment of the carbon balance of Arctic tundra: comparisons among observations, process models, and atmospheric inversions. Biogeosciences, 2012, 9, 3185-3204.	3.3	258
65	Landâ€atmosphere exchange of methane from soil thawing to soil freezing in a highâ€<scp>A</scp>rctic wet tundra ecosystem. Global Change Biology, 2012, 18, 1928-1940.	9.5	89
66	Presence of Eriophorum scheuchzeri enhances substrate availability and methane emission in an Arctic wetland. Soil Biology and Biochemistry, 2012, 45, 61-70.	8.8	116
67	Quantification of C uptake in subarctic birch forest after setback by an extreme insect outbreak. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	42
68	Past and Present Permafrost Temperatures in the Abisko Area: Redrilling of Boreholes. Ambio, 2011, 40, 558-565.	5.5	39
69	Carbon partitioning in a wet and a semiwet subarctic mire ecosystem based on in situ 14C pulse-labelling. Soil Biology and Biochemistry, 2011, 43, 231-239.	8.8	8
70	Plant and Vegetation Dynamics on Disko Island, West Greenland: Snapshots Separated by Over 40 Years. Ambio, 2011, 40, 624-637.	5.5	30
71	Multi-Decadal Changes in Tundra Environments and Ecosystems: Synthesis of the International Polar Year-Back to the Future Project (IPY-BTF). Ambio, 2011, 40, 705-716.	5.5	98
72	Multiple Effects of Changes in Arctic Snow Cover. Ambio, 2011, 40, 32-45.	5.5	169

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73	Variability in exchange of CO₂ across 12 northern peatland and tundra sites. Global Change Biology, 2010, 16, 2436-2448.	9.5	144
74	Establishment of a cross-European field site network in the ALARM project for assessing large-scale changes in biodiversity. Environmental Monitoring and Assessment, 2010, 164, 337-348.	2.7	10
75	The carbon budget of the northern cryosphere region. Current Opinion in Environmental Sustainability, 2010, 2, 231-236.	6.3	61
76	Annual carbon gas budget for a subarctic peatland, Northern Sweden. Biogeosciences, 2010, 7, 95-108.	3.3	118
77	A new climate era in the subâ€Arctic: Accelerating climate changes and multiple impacts. Geophysical Research Letters, 2010, 37, .	4.0	190
78	Quantifying the relative importance of lake emissions in the carbon budget of a subarctic catchment. Journal of Geophysical Research, 2010, 115, .	3.3	52
79	Annual cycle of methane emission from a subarctic peatland. Journal of Geophysical Research, 2010, 115, .	3.3	128
80	Climate and Peatlands. , 2010, , 85-121.		18
81	Effects of N and P fertilization on the greenhouse gas exchange in two northern peatlands with contrasting N deposition rates. Biogeosciences, 2009, 6, 2135-2144.	3.3	68
82	Ecosystem responses to increased precipitation and permafrost decay in subarctic Sweden inferred from peat and lake sediments. Global Change Biology, 2009, 15, 1652-1663.	9.5	74
83	Patchy peat. Nature Geoscience, 2009, 2, 163-164.	12.9	1
84	Sensitivity of the carbon cycle in the Arctic to climate change. Ecological Monographs, 2009, 79, 523-555.	5.4	814
85	Ecological Dynamics Across the Arctic Associated with Recent Climate Change. Science, 2009, 325, 1355-1358.	12.6	1,043
86	Sectoral approaches to improve regional carbon budgets. Climatic Change, 2008, 88, 209-249.	3.6	19
87	Large tundra methane burst during onset of freezing. Nature, 2008, 456, 628-630.	27.8	283
88	Bimembrane diffusion probe for continuous recording of dissolved and entrapped bubble gas concentrations in peat. Soil Biology and Biochemistry, 2008, 40, 2992-3003.	8.8	9
89	Total hydrocarbon flux dynamics at a subarctic mire in northern Sweden. Journal of Geophysical Research, 2008, 113, .	3.3	41
90	Soil and Plant Community-Characteristics and Dynamics at Zackenberg. Advances in Ecological Research, 2008, 40, 223-248.	2.7	99

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91	Spatial and Interâ€Annual Variability of Trace Gas Fluxes in a Heterogeneous Highâ€Arctic Landscape. Advances in Ecological Research, 2008, 40, 473-498.	2.7	19
92	Highâ€Arctic Soil CO2 and CH4 Production Controlled by Temperature, Water, Freezing and Snow. Advances in Ecological Research, 2008, 40, 441-472.	2.7	33
93	Modelling CH₄ emissions from arctic wetlands: effects of hydrological parameterization. Biogeosciences, 2008, 5, 111-121.	3.3	42
94	Observations and Status of Peatland Greenhouse Gas Emissions in Europe. Ecological Studies, 2008, , 243-261.	1.2	68
95	A catchment-scale carbon and greenhouse gas budget of a subarctic landscape. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 1643-1656.	3.4	76
96	Ancient bacteria show evidence of DNA repair. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14401-14405.	7.1	249
97	Annual CO2 balance of a temperate bog. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 804-811.	1.6	62
98	Below ground carbon turnover and greenhouse gas exchanges in a sub-arctic wetland. Soil Biology and Biochemistry, 2007, 39, 1689-1698.	8.8	114
99	Greenhouse gas emissions from a constructed wetland in southern Sweden. Wetlands Ecology and Management, 2007, 15, 43-50.	1.5	44
100	Decadal vegetation changes in a northern peatland, greenhouse gas fluxes and net radiative forcing. Global Change Biology, 2006, 12, 2352-2369.	9.5	214
101	What Determines the Current Presence or Absence of Permafrost in the TornetrÃsk Region, a Sub-arctic Landscape in Northern Sweden?. Ambio, 2006, 35, 190-197.	5.5	76
102	Vegetation, climatic changes and net carbon sequestration in a North-Scandinavian subarctic mire over 30 years. Global Change Biology, 2005, 11, 051006062331004-???.	9.5	115
103	Species-specific Effects of Vascular Plants on Carbon Turnover and Methane Emissions from Wetlands. Biogeochemistry, 2005, 75, 65-82.	3.5	282
104	Effects on the Function of Arctic Ecosystems in the Short- and Long-term Perspectives. Ambio, 2004, 33, 448-458.	5.5	41
105	Synthesis of Effects in Four Arctic Subregions. Ambio, 2004, 33, 469-473.	5.5	14
106	Past Changes in Arctic Terrestrial Ecosystems, Climate and UV Radiation. Ambio, 2004, 33, 398-403.	5.5	18
107	Response of ericoid mycorrhizal colonization and functioning to global change factors. New Phytologist, 2004, 162, 459-469.	7.3	56
108	Carbon cycling in subarctic tundra; seasonal variation in ecosystem partitioning based on in situ 14C pulse-labelling. Soil Biology and Biochemistry, 2004, 36, 245-253.	8.8	45

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109	Moisture Effects on Temperature Sensitivity of CO2 Exchange in a Subarctic Heath Ecosystem. Biogeochemistry, 2004, 70, 315-330.	3.5	48
110	Responses to Projected Changes in Climate and UV-B at the Species Level. Ambio, 2004, 33, 418-435.	5.5	82
111	Rationale, Concepts and Approach to the Assessment. Ambio, 2004, 33, 393-397.	5.5	5
112	Effects of Changes in Climate on Landscape and Regional Processes, and Feedbacks to the Climate System. Ambio, 2004, 33, 459-468.	5.5	56
113	Thawing sub-arctic permafrost: Effects on vegetation and methane emissions. Geophysical Research Letters, 2004, 31, .	4.0	423
114	Effects on the Structure of Arctic Ecosystems in the Short- and Long-term Perspectives. Ambio, 2004, 33, 436-447.	5.5	66
115	Biodiversity, Distributions and Adaptations of Arctic Species in the Context of Environmental Change. Ambio, 2004, 33, 404-417.	5.5	208
116	Uncertainties and Recommendations. Ambio, 2004, 33, 474-479.	5.5	20
117	Biotic controls on CO2 and CH4 exchange in wetlands â€“ a closed environment study. Biogeochemistry, 2003, 64, 337-354.	3.5	107
118	The effect of vascular plants on carbon turnover and methane emissions from a tundra wetland. Global Change Biology, 2003, 9, 1185-1192.	9.5	284
119	Climate change and Arctic ecosystems: 1. Vegetation changes north of 55Â°N between the last glacial maximum, mid-Holocene, and present. Journal of Geophysical Research, 2003, 108, .	3.3	261
120	Climate change and Arctic ecosystems: 2. Modeling, paleodata-model comparisons, and future projections. Journal of Geophysical Research, 2003, 108, .	3.3	429
121	Siberian wetlands: Where a sink is a source. Geophysical Research Letters, 2003, 30, .	4.0	150
122	Factors controlling large scale variations in methane emissions from wetlands. Geophysical Research Letters, 2003, 30, .	4.0	317
123	Seasonal carbon dioxide balance and respiration of a high-arctic fen ecosystem in NE-Greenland. Theoretical and Applied Climatology, 2001, 70, 149-166.	2.8	73
124	Methane emissions from wetlands and their relationship with vascular plants: an Arctic example. Global Change Biology, 2001, 7, 919-932.	9.5	232
125	Trace gas exchange in a high-Arctic valley: 1. Variationsin CO2and CH4Flux between tundra vegetation types. Global Biogeochemical Cycles, 2000, 14, 701-713.	4.9	143
126	Trace gas exchange in a high-Arctic valley: 2. Landscape CH4fluxes measured and modeled using eddy correlation data. Global Biogeochemical Cycles, 2000, 14, 715-723.	4.9	68

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127	Trace gas exchange in a high-Arctic valley: 3. Integrating and scaling CO2fluxes from canopy to landscape using flux data, footprint modeling, and remote sensing. Global Biogeochemical Cycles, 2000, 14, 725-744.	4.9	93
128	Potential and actual trace gas fluxes in Arctic terrestrial ecosystems. Polar Research, 1999, 18, 199-206.	1.6	15
129	Influence of vascular plant photosynthetic rate on CH4emission from peat monoliths from southern boreal Sweden. Polar Research, 1999, 18, 215-220.	1.6	25
130	Vascular plant controls on methane emissions from northern peatforming wetlands. Trends in Ecology and Evolution, 1999, 14, 385-388.	8.7	311
131	Polar biogeochemistry and ecosystem feedback mechanisms in a changing environment. Polar Research, 1999, 18, 189-189.	1.6	0
132	Potential and actual trace gas fluxes in Arctic terrestrial ecosystems. Polar Research, 1999, 18, 199-206.	1.6	7
133	Influence of vascular plant photosynthetic rate on CH4 emission from peat monoliths from southern boreal Sweden. Polar Research, 1999, 18, 215-220.	1.6	8
134	Ecology of Arctic environments. Sarah J. Woodin and Mick Marquiss (Editors). 1997. Oxford: Blackwell Science, vi + 286 p, illustrated, hard cover. ISBN 0-632-04218-4. Â£35.00.. Polar Record, 1998, 34, 70-71.	0.8	0
135	Carbon Dioxide and Methane Exchange of a Subarctic Heath in Response to Climate Change Related Environmental Manipulations. Oikos, 1997, 79, 34.	2.7	71
136	Rapid response of greenhouse gas emission to early spring thaw in a subarctic mire as shown by micrometeorological techniques. Geophysical Research Letters, 1997, 24, 3061-3064.	4.0	82
137	Methane flux from northern wetlands and tundra. An ecosystem source modelling approach. Tellus, Series B: Chemical and Physical Meteorology, 1996, 48, 652-661.	1.6	84
138	Spatial variation in high-latitude methane flux along a transect across Siberian and European tundra environments. Journal of Geophysical Research, 1995, 100, 21035.	3.3	132
139	Methane emission from Arctic tundra. Biogeochemistry, 1993, 21, 117-139.	3.5	115
140	Laboratory Investigations of Methane Buildup in, and Release from, Shallow Peats. Geophysical Monograph Series, 0, , 205-218.	0.1	4