

# High risk of permafrost thaw

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Boreal forest soil carbon: distribution, function and modelling. <i>Forestry</i> , 2012, 85, 161-184.	1.2	173
2	Effects of elevated carbon dioxide and increased temperature on methane and nitrous oxide fluxes: evidence from field experiments. <i>Frontiers in Ecology and the Environment</i> , 2012, 10, 520-527.	1.9	172
3	Mammoth steppe: a high-productivity phenomenon. <i>Quaternary Science Reviews</i> , 2012, 57, 26-45.	1.4	148
4	Soil carbon in the Arctic and the permafrost carbon feedback. <i>Current Opinion in Environmental Sustainability</i> , 2012, 4, 545-551.	3.1	50
5	An assessment of the carbon balance of Arctic tundra: comparisons among observations, process models, and atmospheric inversions. <i>Biogeosciences</i> , 2012, 9, 3185-3204.	1.3	258
6	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, .	3.3	61
7	Vulnerability and Adaptation to Climate Change in the Canadian Arctic. , 2013, , 293-303.		3
8	Ecosystem Services and Carbon Sequestration in the Biosphere. , 2013, , .		27
9	Characterisation of the Permafrost Carbon Pool. <i>Permafrost and Periglacial Processes</i> , 2013, 24, 146-155.	1.5	46
10	Carbon in Canadaâ€™s boreal forest â€“ A synthesis. <i>Environmental Reviews</i> , 2013, 21, 260-292.	2.1	230
11	The Precautionary Principle and the Dilemma Objection. <i>Ethics, Policy and Environment</i> , 2013, 16, 321-340.	0.8	16
12	All in the timing. <i>Nature</i> , 2013, 493, 35-36.	13.7	7
13	Impact of crop patterns and cultivation on carbon sequestration and global warming potential in an agricultural freeze zone. <i>Ecological Modelling</i> , 2013, 252, 228-237.	1.2	22
14	Biological responses to permafrost thaw slumping in Canadian Arctic lakes. <i>Freshwater Biology</i> , 2013, 58, 337-353.	1.2	77
15	Thawing permafrost increases old soil and autotrophic respiration in tundra: Partitioning ecosystem respiration using $\delta^{13}C$ and $\delta^{14}C$ . <i>Global Change Biology</i> , 2013, 19, 649-661.	4.2	134
16	Environmental and physical controls on northern terrestrial methane emissions across permafrost zones. <i>Global Change Biology</i> , 2013, 19, 589-603.	4.2	275
17	Estimating the Permafrost-Carbon Climate Response in the CMIP5 Climate Models Using a Simplified Approach. <i>Journal of Climate</i> , 2013, 26, 4897-4909.	1.2	67
18	Climate Disruption: Are We Beyond the Worst Case Scenario?. <i>Global Policy</i> , 2013, 4, 32-42.	1.0	8

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19	The impact of lower sea-ice extent on Arctic greenhouse-gas exchange. <i>Nature Climate Change</i> , 2013, 3, 195-202.	8.1	119
20	Insights and issues with simulating terrestrial DOC loading of Arctic river networks. <i>Ecological Applications</i> , 2013, 23, 1817-1836.	1.8	92
21	Trajectory of the Arctic as an integrated system. <i>Ecological Applications</i> , 2013, 23, 1837-1868.	1.8	166
22	Potentiostatically Poised Electrodes Mimic Iron Oxide and Interact with Soil Microbial Communities to Alter the Biogeochemistry of Arctic Peat Soils. <i>Minerals (Basel, Switzerland)</i> , 2013, 3, 318-336.	0.8	10
23	If Anthropogenic CO <sub>2</sub> Emissions Cease, Will Atmospheric CO <sub>2</sub> Concentration Continue to Increase?. <i>Journal of Climate</i> , 2013, 26, 9563-9576.	1.2	17
24	Permafrost degradation and methane: low risk of biogeochemical climate-warming feedback. <i>Environmental Research Letters</i> , 2013, 8, 035014.	2.2	43
25	Soil Security: Solving the Global Soil Crisis. <i>Global Policy</i> , 2013, 4, 434-441.	1.0	219
26	Recent burning of boreal forests exceeds fire regime limits of the past 10,000 years. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13055-13060.	3.3	320
27	The topology of non-linear global carbon dynamics: from tipping points to planetary boundaries. <i>Environmental Research Letters</i> , 2013, 8, 044048.	2.2	45
28	Empirical estimates to reduce modeling uncertainties of soil organic carbon in permafrost regions: a review of recent progress and remaining challenges. <i>Environmental Research Letters</i> , 2013, 8, 035020.	2.2	68
29	Effects of Soil Moisture on the Responses of Soil Temperatures to Climate Change in Cold Regions*. <i>Journal of Climate</i> , 2013, 26, 3139-3158.	1.2	68
30	Impacts of disturbance on the terrestrial carbon budget of North America. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 303-316.	1.3	57
31	A Globally Harmonized Carbon Price Framework for Financing the Green Climate Fund. <i>SSRN Electronic Journal</i> , 2013, , .	0.4	2
32	Remote Monitoring of Freeze-Thaw Transitions in Arctic Soils Using the Complex Resistivity Method. <i>Vadose Zone Journal</i> , 2013, 12, 1-13.	1.3	18
33	Sampling Protocols for Permafrost-Affected Soils. <i>Soil Horizons</i> , 2013, 54, 13.	0.3	48
34	Considerations for Sustainable Biomass Production in Quercus-Dominated Forest Ecosystems. , 0, , .		2
35	Carbon cycle uncertainty in the Alaskan Arctic. <i>Biogeosciences</i> , 2014, 11, 4271-4288.	1.3	92
36	Active-Layer Thickness across Alaska: Comparing Observation-Based Estimates with CMIP5 Earth System Model Predictions. <i>Soil Science Society of America Journal</i> , 2014, 78, 894-902.	1.2	36

#	ARTICLE	IF	CITATIONS
37	Meta-analysis of high-latitude nitrogen-addition and warming studies implies ecological mechanisms overlooked by land models. <i>Biogeosciences</i> , 2014, 11, 6969-6983.	1.3	34
38	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.	1.3	27
41	Implications of Arctic Sea Ice Decline for the Earth System. <i>Annual Review of Environment and Resources</i> , 2014, 39, 57-89.	5.6	82
42	Variations in soil carbon dioxide efflux across a thaw slump chronosequence in northwestern Alaska. <i>Environmental Research Letters</i> , 2014, 9, 025001.	2.2	30
45	Site- and horizon-specific patterns of microbial community structure and enzyme activities in permafrost-affected soils of Greenland. <i>Frontiers in Microbiology</i> , 2014, 5, 541.	1.5	73
46	Eye on the Taiga: Removing Global Policy Impediments to Safeguard the Boreal Forest. <i>Conservation Letters</i> , 2014, 7, 408-418.	2.8	54
47	A simplified permafrost-carbon model for long-term climate studies with the CLIMBER-2 coupled earth system model. <i>Geoscientific Model Development</i> , 2014, 7, 3111-3134.	1.3	9
48	Optimal carbon mitigation strategy under non-linear feedback effects and in the presence of permafrost release trigger hazard. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2014, 19, 479-497.	1.0	3
49	Animating the Carbon Cycle. <i>Ecosystems</i> , 2014, 17, 344-359.	1.6	168
50	Microbial Respiration in Arctic Upland and Peat Soils as a Source of Atmospheric Carbon Dioxide. <i>Ecosystems</i> , 2014, 17, 112-126.	1.6	35
51	Distinct microbial communities associated with buried soils in the Siberian tundra. <i>ISME Journal</i> , 2014, 8, 841-853.	4.4	137
52	Methane retrieval from Atmospheric Infrared Sounder using EOF-based regression algorithm and its validation. <i>Science Bulletin</i> , 2014, 59, 1508-1518.	1.7	11
53	Discovery of a novel methanogen prevalent in thawing permafrost. <i>Nature Communications</i> , 2014, 5, 3212.	5.8	170
54	Short-term impacts of active layer detachments on carbon exchange in a High Arctic ecosystem, Cape Bounty, Nunavut, Canada. <i>Polar Biology</i> , 2014, 37, 1459-1468.	0.5	12
55	Bubble emissions from thermokarst lakes in the Qinghai-Xizang Plateau. <i>Quaternary International</i> , 2014, 321, 65-70.	0.7	14
56	Changing mountain permafrost from the 1970s to today - comparing two examples from Niwot Ridge, Colorado Front Range, USA. <i>Zeitschrift für Geomorphologie</i> , 2014, 58, 137-157.	0.3	13
57	A methodology for quantifying global consumptive water use of coffee for sustainable production under conditions of climate change. <i>Journal of Water and Climate Change</i> , 2014, 5, 128-150.	1.2	5
58	CarbonTracker-CH <sub>4</sub> : an assimilation system for estimating emissions of atmospheric methane. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 8269-8293.	1.9	187

#	ARTICLE	IF	CITATIONS
59	Effect of Vegetation Cover on the Ground Thermal Regime of Wooded and Non-Wooded Palsas. Permafrost and Periglacial Processes, 2014, 25, 281-294.	1.5	16
60	Belowground carbon responses to experimental warming regulated by soil moisture change in an alpine ecosystem of the Qinghai-Tibet Plateau. Ecology and Evolution, 2015, 5, 4063-4078.	0.8	28
61	Modeling methane emissions from arctic lakes: Model development and site-level study. Journal of Advances in Modeling Earth Systems, 2015, 7, 459-483.	1.3	71
62	Design of a multisensory probe for measuring carbon cycle processes in aqueous subterranean environments. , 2015, , .		0
63	Changes in lake area in response to thermokarst processes and climate in Old Crow Flats, Yukon. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 513-524.	1.3	76
64	Key evidence of the role of desertification in protecting the underlying permafrost in the Qinghai-Tibet Plateau. Scientific Reports, 2015, 5, 15152.	1.6	23
65	Modeling impacts of changes in temperature and water table on C gas fluxes in an Alaskan peatland. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1279-1295.	1.3	9
66	Assessment of model estimates of land-atmosphere CO <sub>2</sub> exchange across Northern Eurasia. Biogeosciences, 2015, 12, 4385-4405.	1.3	25
67	Permafrost soils and carbon cycling. Soil, 2015, 1, 147-171.	2.2	241
68	Storage and transformation of organic matter fractions in cryoturbated permafrost soils across the Siberian Arctic. Biogeosciences, 2015, 12, 4525-4542.	1.3	85
69	Suitable Days for Plant Growth Disappear under Projected Climate Change: Potential Human and Biotic Vulnerability. PLoS Biology, 2015, 13, e1002167.	2.6	73
70	Organic-matter quality of deep permafrost carbon – a study from Arctic Siberia. Biogeosciences, 2015, 12, 2227-2245.	1.3	94
71	Thermokarst lake methanogenesis along a complete talik profile. Biogeosciences, 2015, 12, 4317-4331.	1.3	43
72	Dissolved organic carbon (DOC) in Arctic ground ice. Cryosphere, 2015, 9, 737-752.	1.5	42
73	Periglacial Processes and Landforms in the Critical Zone. Developments in Earth Surface Processes, 2015, , 397-447.	2.8	11
74	Ecosystem stewardship: A resilience framework for arctic conservation. Global Environmental Change, 2015, 34, 207-217.	3.6	58
75	Robust, spatially scanning, open-path TDLAS hygrometer using retro-reflective foils for fast tomographic 2-D water vapor concentration field measurements. Atmospheric Measurement Techniques, 2015, 8, 2061-2068.	1.2	18
76	Chemistry and the Linkages between Air Quality and Climate Change. Chemical Reviews, 2015, 115, 3856-3897.	23.0	315

#	ARTICLE	IF	CITATIONS
77	Multi-omics of permafrost, active layer and thermokarst bog soil microbiomes. <i>Nature</i> , 2015, 521, 208-212.	13.7	467
78	Methane transport from the active layer to lakes in the Arctic using Toolik Lake, Alaska, as a case study. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3636-3640.	3.3	55
79	Climate change and the permafrost carbon feedback. <i>Nature</i> , 2015, 520, 171-179.	13.7	2,369
80	WORLD CLIMATE. <i>Simulation and Gaming</i> , 2015, 46, 348-382.	1.2	67
81	The contiguous domains of Arctic Ocean advection: Trails of life and death. <i>Progress in Oceanography</i> , 2015, 139, 42-65.	1.5	160
82	Arctic lakes are continuous methane sources to the atmosphere under warming conditions. <i>Environmental Research Letters</i> , 2015, 10, 054016.	2.2	66
83	Soil carbon, multiple benefits. <i>Environmental Development</i> , 2015, 13, 33-38.	1.8	75
85	Coherence among the Northern Hemisphere land, cryosphere, and ocean responses to natural variability and anthropogenic forcing during the satellite era. <i>Earth System Dynamics</i> , 2016, 7, 717-734.	2.7	9
86	Metagenomics Reveals Pervasive Bacterial Populations and Reduced Community Diversity across the Alaska Tundra Ecosystem. <i>Frontiers in Microbiology</i> , 2016, 7, 579.	1.5	66
87	L-Band Relative Permittivity of Organic Soil Surface Layers—A New Dataset of Resonant Cavity Measurements and Model Evaluation. <i>Remote Sensing</i> , 2016, 8, 1024.	1.8	37
88	Ecological state of peat plateaus in northeastern European Russia. <i>Russian Journal of Ecology</i> , 2016, 47, 125-132.	0.3	15
89	Organic matter chemistry controls greenhouse gas emissions from permafrost peatlands. <i>Soil Biology and Biochemistry</i> , 2016, 98, 42-53.	4.2	55
90	Methane Fluxes along a Permafrost Hillslope Gradient in Northcentral China. <i>Forest Science</i> , 2016, 62, 281-287.	0.5	5
91	Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. <i>Global Biogeochemical Cycles</i> , 2016, 30, 1015-1037.	1.9	116
92	An Assessment of macro-scale <i>in situ</i> Raman and ultraviolet-induced fluorescence spectroscopy for rapid characterization of frozen peat and ground ice. <i>International Journal of Astrobiology</i> , 2016, 15, 119-126.	0.9	1
93	Plant functional type affects nitrogen use efficiency in high-Arctic tundra. <i>Soil Biology and Biochemistry</i> , 2016, 94, 19-28.	4.2	28
94	Tundra soil carbon is vulnerable to rapid microbial decomposition under climate warming. <i>Nature Climate Change</i> , 2016, 6, 595-600.	8.1	260
95	McCall Glacier record of Arctic climate change: Interpreting a northern Alaska ice core with regional water isotopes. <i>Quaternary Science Reviews</i> , 2016, 131, 274-284.	1.4	35

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96	Spatial representation of organic carbon and active-layer thickness of high latitude soils in CMIP5 earth system models. <i>Geoderma</i> , 2017, 300, 55-63.	2.3	48
97	Mechanistic modeling of microbial interactions at pore to profile scale resolve methane emission dynamics from permafrost soil. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 1216-1238.	1.3	21
98	Validation of the Soil Moisture Active Passive (SMAP) satellite soil moisture retrieval in an Arctic tundra environment. <i>Geophysical Research Letters</i> , 2017, 44, 4152-4158.	1.5	15
99	Progress in space-borne studies of permafrost for climate science: Towards a multi-ECV approach. <i>Remote Sensing of Environment</i> , 2017, 203, 55-70.	4.6	23
100	Historical and Contemporary Global Methane Cycling. , 2017, , 227-285.		0
101	Old before your time: Ancient carbon incorporation in contemporary aquatic foodwebs. <i>Limnology and Oceanography</i> , 2017, 62, 1682-1700.	1.6	45
103	Response of Soil Bacterial Community Structure to Permafrost Degradation in the Upstream Regions of the Shule River Basin, Qinghaiâ€”Tibet Plateau. <i>Geomicrobiology Journal</i> , 2017, 34, 300-308.	1.0	7
104	Simulated responses of permafrost distribution to climate change on the Qinghaiâ€”Tibet Plateau. <i>Scientific Reports</i> , 2017, 7, 3845.	1.6	44
105	Diurnal and seasonal variations of tundra CO <sub>2</sub> emissions in a polygonal peatland near Salluit, Nunavik, Canada. <i>Arctic Science</i> , 0, , .	0.9	5
106	Spatial and Temporal Variation in Methane Concentrations, Fluxes, and Sources in Lakes in Arctic Alaska. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 2966-2981.	1.3	18
107	Chemical Structure of the Lipid A component of <i>Pseudomonas</i> sp. strain PAMC 28618 from Thawing Permafrost in Relation to Pathogenicity. <i>Scientific Reports</i> , 2017, 7, 2168.	1.6	6
108	The initiation and development of small peatâ€”forming ecosystems adjacent to lakes in the north central Canadian low arctic during the Holocene. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 1672-1688.	1.3	2
109	Shifted energy fluxes, increased Bowen ratios, and reduced thaw depths linked with drainage-induced changes in permafrost ecosystem structure. <i>Cryosphere</i> , 2017, 11, 2975-2996.	1.5	34
110	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.	1.3	18
112	Post-thaw variability in litter decomposition best explained by microtopography at an ice-rich permafrost peatland. <i>Arctic, Antarctic, and Alpine Research</i> , 2018, 50, .	0.4	9
113	Selective Leaching of Dissolved Organic Matter From Alpine Permafrost Soils on the Qinghaiâ€”Tibetan Plateau. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 1005-1016.	1.3	24
114	Methane Feedbacks to the Global Climate System in a Warmer World. <i>Reviews of Geophysics</i> , 2018, 56, 207-250.	9.0	354
115	Missing pieces to modeling the Arctic-Boreal puzzle. <i>Environmental Research Letters</i> , 2018, 13, 020202.	2.2	61

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116	Microbial functional diversity covaries with permafrost thaw-induced environmental heterogeneity in tundra soil. <i>Global Change Biology</i> , 2018, 24, 297-307.	4.2	22
117	Back to the future in a petri dish: Origin and impact of resurrected microbes in natural populations. <i>Evolutionary Applications</i> , 2018, 11, 29-41.	1.5	28
118	Fate of carbohydrates and lignin in north-east Siberian permafrost soils. <i>Soil Biology and Biochemistry</i> , 2018, 116, 311-322.	4.2	59
119	Nitrous oxide emissions following seasonal freeze-thaw events from arable soils in Northeast China. <i>Journal of Integrative Agriculture</i> , 2018, 17, 231-246.	1.7	22
120	Climate change and permafrost thaw-induced boreal forest loss in northwestern Canada. <i>Environmental Research Letters</i> , 2018, 13, 084018.	2.2	60
121	Passive L-Band Microwave Remote Sensing of Organic Soil Surface Layers: A Tower-Based Experiment. <i>Remote Sensing</i> , 2018, 10, 304.	1.8	22
122	Spatio-Temporal Variations of Soil Active Layer Thickness in Chinese Boreal Forests from 2000 to 2015. <i>Remote Sensing</i> , 2018, 10, 1225.	1.8	5
123	Mercury in Active Layer Tundra Soils of Alaska: Concentrations, Pools, Origins, and Spatial Distribution. <i>Global Biogeochemical Cycles</i> , 2018, 32, 1058-1073.	1.9	47
124	Impacts of microtopographic snow redistribution and lateral subsurface processes on hydrologic and thermal states in an Arctic polygonal ground ecosystem: a case study using ELM-3D v1.0. <i>Geoscientific Model Development</i> , 2018, 11, 61-76.	1.3	17
125	Methanogenesis at High Latitudes. , 2018, , 1-21.		1
126	Soil Carbon. , 2018, , 1-28.		8
127	Responses of tundra soil microbial communities to half a decade of experimental warming at two critical depths. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15096-15105.	3.3	83
128	Snowmelt and early to mid-growing season water availability augment tree growth during rapid warming in southern Asian boreal forests. <i>Global Change Biology</i> , 2019, 25, 3462-3471.	4.2	58
129	Understanding spatial variability of methane fluxes in Arctic wetlands through footprint modelling. <i>Environmental Research Letters</i> , 2019, 14, 125010.	2.2	11
130	The LysR-type transcriptional regulator STM0030 contributes to <i>Salmonella</i> Typhimurium growth in macrophages and virulence in mice. <i>Journal of Basic Microbiology</i> , 2019, 59, 1143-1153.	1.8	7
131	Biophysical feedback of global forest fires on surface temperature. <i>Nature Communications</i> , 2019, 10, 214.	5.8	94
132	Negative feedback processes following drainage slow down permafrost degradation. <i>Global Change Biology</i> , 2019, 25, 3254-3266.	4.2	26
133	Mercury and trace metal wet deposition across five stations in Alaska: controlling factors, spatial patterns, and source regions. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 6913-6929.	1.9	27

#	ARTICLE	IF	CITATIONS
134	The role of the physical properties of soil in determining biogeochemical responses to soil warming. , 2019, , 209-244.		7
135	Long-term warming research in high-latitude ecosystems: Responses from polar ecosystems and implications for future climate. , 2019, , 441-487.		2
136	Effects of snow-depth change on spring runoff in cryosphere areas of China. Hydrological Sciences Journal, 2019, 64, 789-797.	1.2	7
137	Chemical and Structural Dynamics of Nanostructures in Bimetallic Pt&Pd Catalysts, Their Inhomogeneity, and Their Roles in Methane Oxidation. ACS Catalysis, 2019, 9, 5445-5461.	5.5	46
138	Partitioning net ecosystem exchange of CO&lt;sub&gt;2&lt;/sub& on the pedon scale in the Lena River Delta, Siberia. Biogeosciences, 2019, 16, 1543-1562.	1.3	15
139	Dynamics of available and enzymatically hydrolysable soil phosphorus fractions during repeated freeze-thaw cycles. Geoderma, 2019, 345, 1-4.	2.3	14
140	Effects of the Freezing&Thawing Cycle Mode on Alpine Vegetation in the Nagqu River Basin of the Qinghai&Tibet Plateau. Water (Switzerland), 2019, 11, 2122.	1.2	11
141	Spatial distribution and changes of permafrost on the Qinghai-Tibet Plateau revealed by statistical models during the period of 1980 to 2010. Science of the Total Environment, 2019, 650, 661-670.	3.9	63
142	Evaluating tephrochronology in the permafrost peatlands of northern Sweden. Quaternary Geochronology, 2019, 50, 16-28.	0.6	7
143	Increased high&lt;sup&gt;latitude&lt;/sup& photosynthetic carbon gain offset by respiration carbon loss during an anomalous warm winter to spring transition. Global Change Biology, 2020, 26, 682-696.	4.2	41
144	Optimizing the Crystallite Structure of Lignin&Based Nanospheres by Resinification for High&Performance Sodium&Ion Battery Anodes. Energy Technology, 2020, 8, 1900694.	1.8	9
145	Major natural sinks for harboring microorganisms with altered antibiotic resistance versus major human contributing sources of antibiotic resistance: a detailed insight. , 2020, , 70-98.		3
146	How to survive winter?. , 2020, , 101-125.		1
147	Vertebrate viruses in polar ecosystems. , 2020, , 126-148.		0
149	Life in the extreme environments of our planet under pressure. , 2020, , 151-183.		0
150	Chemical ecology in the Southern Ocean. , 2020, , 251-278.		1
154	Physiological traits of the Greenland sharkSomniosus microcephalusobtained during the TUNU-Expeditions to Northeast Greenland. , 2020, , 11-41.		0
155	Metazoan adaptation to deep-sea hydrothermal vents. , 2020, , 42-67.		4

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156	Extremophiles populating high-level natural radiation areas (HLNRAs) in Iran. , 2020, , 68-86.		1
158	Metazoan life in anoxic marine sediments. , 2020, , 89-100.		0
159	The ecophysiology of responding to change in polar marine benthos. , 2020, , 184-217.		0
160	The Southern Ocean: an extreme environment or just home of unique ecosystems?. , 2020, , 218-233.		1
161	Metabolic and taxonomic diversity in antarctic subglacial environments. , 2020, , 279-296.		2
162	Analytical astrobiology: the search for life signatures and the remote detection of biomarkers through their Raman spectral interrogation. , 2020, , 301-318.		1
163	Adaptation/acclimatisation mechanisms of oxyphototrophic microorganisms and their relevance to astrobiology. , 2020, , 319-342.		0
164	Life at the extremes. , 2020, , 343-354.		0
165	Microorganisms in cryoturbated organic matter of Arctic permafrost soils. , 2020, , 234-250.		0
168	Monitoring Freeze-Thaw State by Means of GNSS Reflectometry: An Analysis of TechDemoSat-1 Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 2996-3005.	2.3	32
169	Soil erosion and sediment dynamics in the Anthropocene: a review of human impacts during a period of rapid global environmental change. Journal of Soils and Sediments, 2020, 20, 4115-4143.	1.5	77
170	Rapid Fluvio-Thermal Erosion of a Yedoma Permafrost Cliff in the Lena River Delta. Frontiers in Earth Science, 2020, 8, .	0.8	38
171	Research challenges and opportunities for using big data in global change biology. Global Change Biology, 2020, 26, 6040-6061.	4.2	33
172	Resurrection of inactive microbes and resistome present in the natural frozen world: Reality or myth?. Science of the Total Environment, 2020, 735, 139275.	3.9	21
173	CLAY MINERALS AS THE KEY TO THE SEQUESTRATION OF CARBON IN SOILS. Clays and Clay Minerals, 2020, 68, 135-143.	0.6	52
175	Pasture degradation impact on soil carbon and nitrogen fractions of alpine meadow in a Tibetan permafrost region. Journal of Soils and Sediments, 2020, 20, 2330-2342.	1.5	9
176	Evaluation and analysis of SMAP, AMSR2 and MEaSUREs freeze/thaw products in China. Remote Sensing of Environment, 2020, 242, 111734.	4.6	29
177	Soil conditions required for reaction wood formation of drunken trees in a continuous permafrost region. Arctic, Antarctic, and Alpine Research, 2020, 52, 47-59.	0.4	5

#	ARTICLE	IF	CITATIONS
178	Warming-induced permafrost thaw exacerbates tundra soil carbon decomposition mediated by microbial community. <i>Microbiome</i> , 2020, 8, 3.	4.9	75
180	Warming threatens the microbial communities in middle-high latitude peatland: Evidence from testate amoebae. <i>Soil Biology and Biochemistry</i> , 2021, 153, 108105.	4.2	4
181	Numerical model to simulate long-term soil organic carbon and ground ice budget with permafrost and ice sheets (SOC-ICE-v1.0). <i>Geoscientific Model Development</i> , 2021, 14, 521-542.	1.3	3
182	Letter: Trophic interactions regulate peatland carbon cycling. <i>Ecology Letters</i> , 2021, 24, 781-790.	3.0	10
185	Transformation of Microbial Complexes in Components of Soil Constructions of Different Origin (Soil, Peat, Sand) during Freezing-thawing Processes. <i>Microbiology</i> , 2021, 90, 176-186.	0.5	3
186	Blue mussel ( <i>Mytilus</i> spp.) cultivation in mesohaline eutrophied inner coastal waters: mitigation potential, threats and cost effectiveness. <i>PeerJ</i> , 2021, 9, e11247.	0.9	4
187	Tundra Underlain By Thawing Permafrost Persistently Emits Carbon to the Atmosphere Over 15 Years of Measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006044.	1.3	19
188	Active site structure and methane oxidation reactivity of bimetallic Pd and Pt nanoparticles. <i>Applied Catalysis A: General</i> , 2022, 629, 118290.	2.2	12
189	Simulations and Analysis of GNSS Multipath Observables for Frozen and Thawed Soil under Complex Surface Conditions. <i>Water (Switzerland)</i> , 2021, 13, 1986.	1.2	1
191	A synthesis dataset of permafrost thermal state for the Qinghai-Tibet (Xizang) Plateau, China. <i>Earth System Science Data</i> , 2021, 13, 4207-4218.	3.7	84
192	Comparative Metagenomics of the Active Layer and Permafrost from Low-Carbon Soil in the Canadian High Arctic. <i>Environmental Science &amp; Technology</i> , 2021, 55, 12683-12693.	4.6	10
193	The Tempo of Solid Fluids: On River Ice, Permafrost, and Other Melting Matter in the Mackenzie Delta. <i>Theory, Culture and Society</i> , 0, , 026327642110309.	1.3	5
194	Dominant influence of non-thawing periods on annual CO2 emissions from Zoige peatlands: Five-year eddy covariance analysis. <i>Ecological Indicators</i> , 2021, 129, 107913.	2.6	8
195	A statistical framework for assessing temperature controls on landscape Freeze-Thaw: Application and implications in Quebec, Canada (1979-2016). <i>Journal of Hydrology</i> , 2021, 603, 126891.	2.3	3
196	Characteristics of the active-layer under the China-Russia Crude Oil pipeline. <i>Journal of Mountain Science</i> , 2021, 18, 323-337.	0.8	11
197	Detailed Characterization and Monitoring of a Retrogressive Thaw Slump from Remotely Piloted Aircraft Systems and Identifying Associated Influence on Carbon and Nitrogen Export. <i>Remote Sensing</i> , 2021, 13, 171.	1.8	17
198	Loss and Damage in the Rapidly Changing Arctic. <i>Climate Risk Management, Policy and Governance</i> , 2019, , 425-447.	2.5	8
199	Arctic Marine Governance. , 2014, , .		5

#	ARTICLE	IF	CITATIONS
200	The Arctic Marine Environment. , 2014, , 21-43.		4
201	Natural Hazards Mitigation Services of Carbon-Rich Ecosystems. , 2013, , 221-293.		11
202	How Cost-Effective Is Forestry for Climate Change Mitigation?. Forestry Sciences, 2014, , 297-339.	0.4	2
204	The global challenge for soil carbon.. , 2015, , 1-9.		10
205	Effects of thermo-erosional disturbance on surface soil carbon and nitrogen dynamics in upland arctic tundra. Environmental Research Letters, 2014, 9, 075006.	2.2	42
206	Thawing permafrost: an overlooked source of seeds for Arctic cloud formation. Environmental Research Letters, 2020, 15, 084022.	2.2	33
208	Landslide Hazards and Climate Change: A Perspective from the United States. , 2016, , 479-523.		8
209	The Specificities of the Temperature Regime of Seasonally Freezing Soils of Tundra Landscape of European North East of Russia. Dokuchaev Soil Bulletin, 2017, , 3-21.	0.1	2
210	Characterizing Subzero-Temperature Thermal Properties of Seasonally Frozen Soil in Alpine Forest in the Western Sichuan Province, China. Journal of Water Resource and Protection, 2016, 08, 583-593.	0.3	3
222	Spatiotemporal dynamics of abiotic and biotic properties explain biodiversity-ecosystem-functioning relationships. Ecological Monographs, 2022, 92, e01490.	2.4	13
226	Climate Mediated Changes in Permafrost and Their Effects on Natural and Human Environments. , 2017, , 477-512.		1
228	Methanogenesis at High Latitudes. , 2019, , 261-281.		0
229	Futuristic Methods in Virus Genome Evolution Using the Third-Generation DNA Sequencing and Artificial Neural Networks. , 2019, , 485-513.		2
230	Dielectric database of organic Arctic soils (DDOAS). Earth System Science Data, 2020, 12, 3481-3487.	3.7	5
231	Remote sensing annual dynamics of rapid permafrost thaw disturbances with LandTrendr. Remote Sensing of Environment, 2022, 268, 112752.	4.6	47
232	Sediment Delivery by the Yukon River to the Yukon Flats, Yukon Delta and the Bering Sea. Open Journal of Soil Science, 2020, 10, 410-442.	0.3	3
234	Potential of GNSS Reflectometry for Freeze-Thaw Monitoring: a Study of Techdemosat-1 Data. , 2020, , .		0
235	Effects of freezing-thawing cycles on porosity and geometric configuration of an artificial soils in laboratory modeling. IOP Conference Series: Earth and Environmental Science, 2021, 862, 012037.	0.2	0

#	ARTICLE	IF	CITATIONS
237	Detection of increase in air temperature in Barrow, AK, USA, through the use of extreme value indices and its impact on the permafrost active layer thickness. <i>Theoretical and Applied Climatology</i> , 2022, 148, 79-89.	1.3	0
238	Microbes in thawing permafrost: contributions to climate change. , 2022, , 1-28.		3
239	Spatiotemporal Characteristics of NPP Changes in Frozen Ground Areas of the Three-River Headwaters Region, China: A Regional Modeling Perspective. <i>Frontiers in Earth Science</i> , 2022, 10, .	0.8	3
240	Freeze-thaw cycle frequency affects root growth of alpine meadow through changing soil moisture and nutrients. <i>Scientific Reports</i> , 2022, 12, 4436.	1.6	6
242	Plant foliar nutrient response to active layer and water table depth in warming permafrost soils. <i>Journal of Ecology</i> , 2022, 110, 1201-1216.	1.9	3
243	Tree ring evidence of rapid development of drunken forest induced by permafrost warming. <i>Global Change Biology</i> , 2022, 28, 3920-3928.	4.2	3
244	Urea uptake by spruce tree roots in permafrost-affected soils. <i>Soil Biology and Biochemistry</i> , 2022, 169, 108647.	4.2	2
245	Positron-emitting radiotracers spatially resolve unexpected biogeochemical relationships linked with methane oxidation in Arctic soils. <i>Global Change Biology</i> , 2022, , .	4.2	0
246	Permafrost as a potential pathogen reservoir. <i>One Earth</i> , 2022, 5, 351-360.	3.6	22
249	Study on Stability Analysis of Soil-Rock-Mixture Slopes under Freeze-Thaw Erosion in Greater Khingan Mountains. <i>Lithosphere</i> , 2022, 2022, .	0.6	3
250	Land Surface Freeze/Thaw Detection Over the Qinghai-Tibet Plateau Using FY-3/MWRI Data. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2022, 60, 1-17.	2.7	0
251	Daily High-Resolution Land Surface Freeze/Thaw Detection Using Sentinel-1 and AMSR2 Data. <i>Remote Sensing</i> , 2022, 14, 2854.	1.8	0
252	Effects of Permafrost Degradation on Soil Carbon and Nitrogen Cycling in Permafrost Wetlands. <i>Frontiers in Earth Science</i> , 2022, 10, .	0.8	2
253	Impacts of permafrost thaw on streamflow recession in a discontinuous permafrost watershed of northeastern China. <i>Science of the Total Environment</i> , 2022, 847, 157624.	3.9	5
254	Bacterial functional redundancy and carbon metabolism potentials in soil, sediment, and water of thermokarst landscapes across the Qinghai-Tibet Plateau: Implications for the fate of permafrost carbon. <i>Science of the Total Environment</i> , 2022, 852, 158340.	3.9	7
255	A machine learning-based dynamic ensemble selection algorithm for microwave retrieval of surface soil freeze/thaw: A case study across China. <i>GIScience and Remote Sensing</i> , 2022, 59, 1550-1569.	2.4	3
256	Permafrost and Climate Change: Carbon Cycle Feedbacks From the Warming Arctic. <i>Annual Review of Environment and Resources</i> , 2022, 47, 343-371.	5.6	56
257	How does soil water status influence the fate of soil organic matter? A review of processes across scales. <i>Earth-Science Reviews</i> , 2022, 234, 104214.	4.0	6

#	ARTICLE	IF	CITATIONS
258	Implications of Earth system tipping pathways for climate change mitigation investment. Discover Sustainability, 2022, 3, .	1.4	0
259	Disturbance Regimes and Climate Extremes of the Earth's Vegetation Zones. Landscape Series, 2022, , 41-75.	0.1	1
260	Seasonal and Spatial Variability of Dissolved Nutrients in the Yenisei River. Water (Switzerland), 2022, 14, 3935.	1.2	0
261	Simulating the current and future northern limit of permafrost on the Qinghai-Tibet Plateau. Cryosphere, 2022, 16, 4823-4846.	1.5	2
262	Global and northern-high-latitude net ecosystem production in the 21st century from CMIP6 experiments. Earth System Dynamics, 2023, 14, 1-16.	2.7	3
263	Attenuation of Methane Oxidation by Nitrogen Availability in Arctic Tundra Soils. Environmental Science & Technology, 2023, 57, 2647-2659.	4.6	5
264	Mechanisms and Impacts of Earth System Tipping Elements. Reviews of Geophysics, 2023, 61, .	9.0	10
272	Permafrost. , 2023, , 163-169.		0