

CITATION REPORT

List of articles citing

Quantifying global soil carbon losses in response to warming

DOI: 10.1038/nature20150
Nature, 2016, 540, 104-108.

Source: <https://exaly.com/paper-pdf/63553763/citation-report.pdf>

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
736	Biogeochemistry: Projections of the soil-carbon deficit. <i>Nature</i> , 2016 , 540, 47-48	50.4	6
735	DEB modeling for nanotoxicology, microbial ecology, and environmental engineering: Comment on: "Physics of metabolic organization" by Marko Jusup et al. 2017 , 20, 49-51		2
734	Not all riparian zones are wetlands: Understanding the limitation of the "Wetland bias" problem. 2017 , 31, 2125-2127		10
733	Shrubland primary production and soil respiration diverge along European climate gradient. 2017 , 7, 43952		20
732	The whole-soil carbon flux in response to warming. 2017 , 355, 1420-1423		223
731	CO ₂ Exchange in an Alpine Swamp Meadow on the Central Tibetan Plateau. 2017 , 37, 525-543		22
730	Al-/Fe-(hydr)oxides-organic carbon associations in Oxisols: From ecosystems to submicron scales. 2017 , 154, 63-72		23
729	Pathways for balancing CO emissions and sinks. 2017 , 8, 14856		72
728	Warming enhances old organic carbon decomposition through altering functional microbial communities. 2017 , 11, 1825-1835		80
727	Grand Challenges in Understanding the Interplay of Climate and Land Changes. 2017 , 21, 1-43		17
726	Climate mitigation policy as a system solution: addressing the risk cost of carbon. 2017 , 7, 233-274		5
725	Save northern high-latitude catchments. 2017 , 10, 324-325		53
724	Global change induced biomass growth offsets carbon released via increased forest fire and respiration of the central Canadian boreal forest. 2017 , 122, 1275-1293		12
723	Disentangling the signal of climatic fluctuations from land use: changes in ecosystem functioning in South American protected areas (1982-2012). 2017 , 3, 177-189		8
722	Impacts of twenty years of experimental warming on soil carbon, nitrogen, moisture and soil mites across alpine/subarctic tundra communities. 2017 , 7, 44489		32
721	Higher climatological temperature sensitivity of soil carbon in cold than warm climates. 2017 , 7, 817-822		116
720	Modeling Global Soil Carbon and Soil Microbial Carbon by Integrating Microbial Processes into the Ecosystem Process Model TRIPLEX-GHG. 2017 , 9, 2368-2384		35

719	Long-term pattern and magnitude of soil carbon feedback to the climate system in a warming world. 2017 , 358, 101-105	299
718	Spatial distribution of soil organic carbon and its influencing factors at different soil depths in a semiarid region of China. 2017 , 76, 1	6
717	Soil carbon debt of 12,000 years of human land use. 2017 , 114, 9575-9580	389
716	Shifting from a fertilization-dominated to a warming-dominated period. 2017 , 1, 1438-1445	99
715	The Ecology of Soil Carbon: Pools, Vulnerabilities, and Biotic and Abiotic Controls. 2017 , 48, 419-445	329
714	Different responses of soil, heterotrophic and autotrophic respirations to a 4-year soil warming experiment in a cool-temperate deciduous broadleaved forest in central Japan. 2017 , 247, 560-570	25
713	Aquatic export of young dissolved and gaseous carbon from a pristine boreal fen: Implications for peat carbon stock stability. 2017 , 23, 5523-5536	25
712	The fate of ¹³ C/ ¹⁵ N labelled glycine in permafrost and surface soil at simulated thaw in mesocosms from high arctic and subarctic ecosystems. 2017 , 419, 201-218	10
711	Fungal interactions reduce carbon use efficiency. 2017 , 20, 1034-1042	44
710	Modelling long-term impacts of changes in climate, nitrogen deposition and ozone exposure on carbon sequestration of European forest ecosystems. 2017 , 605-606, 1097-1116	32
709	Changes in quality and quantity of soil organic matter stocks resulting from wastewater irrigation in formerly forested land. 2017 , 306, 99-107	19
708	Warm- and cold- season grazing affect soil respiration differently in alpine grasslands. 2017 , 248, 136-143	15
707	Future Riverine Inorganic Nitrogen Load to the Baltic Sea From Sweden: An Ensemble Approach to Assessing Climate Change Effects. 2017 , 31, 1674-1701	10
706	Pedotransfer Functions in Earth System Science: Challenges and Perspectives. 2017 , 55, 1199-1256	186
705	Global Sequestration Potential of Increased Organic Carbon in Cropland Soils. 2017 , 7, 15554	160
704	Long-term nitrogen & phosphorus additions reduce soil microbial respiration but increase its temperature sensitivity in a Tibetan alpine meadow. 2017 , 113, 26-34	55
703	Unifying the functional diversity in natural and cultivated soils using the overall body-mass distribution of nematodes. 2017 , 17, 36	8
702	Conservation Agriculture Effects on Dynamics of Soil C and N under Climate Change Scenario. 2017 , 269-312	7

701	Estimating global cropland production from 1961 to 2010. 2017 , 8, 875-887	3
700	What Agriculture Can Learn from Native Ecosystems in Building Soil Organic Matter: A Review. 2017 , 9, 578	50
699	Young people's burden: requirement of negative CO ₂ emissions. 2017 , 8, 577-616	127
698	Accounting for Carbon Stocks in Soils and Measuring GHGs Emission Fluxes from Soils: Do We Have the Necessary Standards?. 2017 , 5,	31
697	Data-mining analysis of the global distribution of soil carbon in observational databases and Earth system models. 2017 , 10, 1321-1337	10
696	Soil carbon varies between different organic and conventional management schemes in arable agriculture. 2018 , 94, 79-88	25
695	The soil microbiome-from metagenomics to metaphenomics. 2018 , 43, 162-168	194
694	Tracking the fate of fresh carbon in the Arctic tundra: Will shrub expansion alter responses of soil organic matter to warming?. 2018 , 120, 134-144	30
693	Predicting soil carbon loss with warming. <i>Nature</i> , 2018 , 554, E4-E5	50.4 71
692	Crowther et al. reply. <i>Nature</i> , 2018 , 554, E7-E8	50.4 11
691	News Feature: Can predators have a big impact on carbon emissions calculations?. 2018 , 115, 2260-2263	2
690	Dryland soils in northern China sequester carbon during the early 2000s warming hiatus period. 2018 , 32, 1620-1630	12
689	Comment on "The whole-soil carbon flux in response to warming". 2018 , 359,	8
688	Catalytic power of enzymes decreases with temperature: New insights for understanding soil C cycling and microbial ecology under warming. 2018 , 24, 4238-4250	40
687	Interactions Between Land-Use Change and Climate-Carbon Cycle Feedbacks. 2018 , 4, 115-127	11
686	Geothermally warmed soils reveal persistent increases in the respiratory costs of soil microbes contributing to substantial C losses. 2018 , 138, 245-260	6
685	Plant diversity enhances productivity and soil carbon storage. 2018 , 115, 4027-4032	170
684	Shifting plant species composition in response to climate change stabilizes grassland primary production. 2018 , 115, 4051-4056	208

- 683 Process-Oriented Modeling of a High Arctic Tundra Ecosystem: Long-Term Carbon Budget and Ecosystem Responses to Interannual Variations of Climate. **2018**, 123, 1178-1196 10
- 682 Temporal Coupling of Subsurface and Surface Soil CO₂ Fluxes: Insights From a Nonsteady State Model and Cross-Wavelet Coherence Analysis. **2018**, 123, 1406-1424 2
- 681 Extreme Climate Effects on Dissolved Organic Carbon Concentrations During Snowmelt. **2018**, 123, 1277-1288 11
- 680 Navigating the unfolding open data landscape in ecology and evolution. **2018**, 2, 420-426 21
- 679 Modelling the impact of urban growth on agriculture and natural land in Italy to 2030. **2018**, 91, 156-167 89
- 678 Crop traits drive soil carbon sequestration under organic farming. **2018**, 55, 2496-2505 15
- 677 The Role of Peatlands and Their Carbon Storage Function in the Context of Climate Change. **2018**, 169-187 12
- 676 Reduced feeding activity of soil detritivores under warmer and drier conditions. **2018**, 8, 75-78 70
- 675 Temperature sensitivities of extracellular enzyme V and K across thermal environments. **2018**, 24, 2884-2897 36
- 674 Soil organic carbon stock in Abune Yosef afroalpine and sub-afroalpine vegetation, northern Ethiopia. **2018**, 7, 11
- 673 Organic carbon stocks in topsoil and subsoil in long-term ley and cereal monoculture rotations. **2018**, 54, 549-558 31
- 672 Beyond respiration: Controls on lateral carbon fluxes across the terrestrial-aquatic interface. **2018**, 3, 76-88 52
- 671 Lake Baikal isotope records of Holocene Central Asian precipitation. **2018**, 189, 210-222 13
- 670 Smith, K.A., Ball, T., Conen, F., Dobbie, K.E., Massheder, J. & Rey, A. 2003. Exchange of greenhouse gases between soil and atmosphere: interactions of soil physical factors and biological processes. *European Journal of Soil Science*, 54, 779-791. **2018**, 69, 5-9 1
- 669 Long-Term Stimulatory Warming Effect on Soil Heterotrophic Respiration in a Cool-Temperate Broad-Leaved Deciduous Forest in Northern Japan. **2018**, 123, 1161-1177 12
- 668 Soil carbon stock changes in tropical croplands are mainly driven by carbon inputs: A synthesis. **2018**, 259, 147-158 59
- 667 Urban geography III: Anthropocene urbanism. **2018**, 42, 425-435 35
- 666 Rejoinder to Comments on Minasny et al., 2017 Soil carbon 4 per mille *Geoderma* 292, 5986. **2018**, 309, 124-129 26

665	The $\frac{1}{4}$ per 1000 initiative: A credibility issue for the soil science community?. 2018 , 309, 118-123	61
664	Nitrogen fertilization stimulated soil heterotrophic but not autotrophic respiration in cropland soils: A greater role of organic over inorganic fertilizer. 2018 , 116, 253-264	37
663	The detritus-based microbial-invertebrate food web contributes disproportionately to carbon and nitrogen cycling in the Arctic. 2018 , 41, 1531-1545	22
662	Tipping point in plant-fungal interactions under severe drought causes abrupt rise in peatland ecosystem respiration. 2018 , 24, 972-986	61
661	LUCAS Soil, the largest expandable soil dataset for Europe: a review. 2018 , 69, 140-153	152
660	How landscape organization and scale shape catchment hydrology and biogeochemistry: insights from a long-term catchment study. 2018 , 5, e1265	19
659	Warming induced changes in soil carbon and nitrogen influence priming responses in four ecosystems. 2018 , 124, 110-116	13
658	Contrasting above- and belowground organic matter decomposition and carbon and nitrogen dynamics in response to warming in High Arctic tundra. 2018 , 24, 2660-2672	15
657	Carbon cycle confidence and uncertainty: Exploring variation among soil biogeochemical models. 2018 , 24, 1563-1579	79
656	Factors controlling soil microbial respiration during the growing season in a mature larch plantation in Northern Japan. 2018 , 18, 661-668	4
655	Sequestering Atmospheric CO ₂ Inorganically: A Solution for Malaysia's CO ₂ Emission. 2018 , 8, 483	4
654	Caution Is Needed in Quantifying Terrestrial Biomass Responses to Elevated Temperature: Meta-Analyses of Field-Based Experimental Warming Across China. 2018 , 9, 619	2
653	Disentangling effects of air and soil temperature on C allocation in cold environments: A C pulse-labelling study with two plant species. 2018 , 8, 7778-7789	2
652	Temperature sensitivity of soil respiration in a low-latitude forest ecosystem varies by season and habitat but is unaffected by experimental warming. 2018 , 141, 63-73	8
651	Plant functional trait change across a warming tundra biome. <i>Nature</i> , 2018 , 562, 57-62	50.4 264
650	Multiple models and experiments underscore large uncertainty in soil carbon dynamics. 2018 , 141, 109-123	95
649	Soil-Plant-Atmosphere Interactions. 2018 , 29-60	3
648	Future Global Soil Respiration Rates Will Swell Despite Regional Decreases in Temperature Sensitivity Caused by Rising Temperature. 2018 , 6, 1539-1554	23

647	Passive experimental warming decouples air and sediment temperatures in a salt marsh. 2018 , 16, 640-648	2
646	A Large Committed Long-Term Sink of Carbon due to Vegetation Dynamics. 2018 , 6, 1413-1432	15
645	Microbial temperature sensitivity and biomass change explain soil carbon loss with warming. 2018 , 8, 885-889	110
644	Fast microbes regulate slow soil feedbacks. 2018 , 8, 859-860	3
643	Precipitation thresholds regulate net carbon exchange at the continental scale. 2018 , 9, 3596	22
642	Potential impacts of climate change on soil organic carbon and productivity in pastures of south eastern Australia. 2018 , 167, 34-46	15
641	The Fate of Chemical Pollutants with Soil Properties and Processes in the Climate Change Paradigm Review. 2018 , 2, 51	40
640	High riverine CO ₂ emissions at the permafrost boundary of Western Siberia. 2018 , 11, 825-829	40
639	Warming exerts greater impacts on subsoil than topsoil CO ₂ efflux in a subtropical forest. 2018 , 263, 137-146	8
638	Elevated CO ₂ and warming cause interactive effects on soil carbon and shifts in carbon use by bacteria. 2018 , 21, 1639-1648	20
637	The potential of agricultural land management to contribute to lower global surface temperatures. 2018 , 4, eaaq0932	19
636	Experimental herbivore exclusion, shrub introduction, and carbon sequestration in alpine plant communities. 2018 , 18, 29	5
635	Variable resolution modeling of near future mean temperature changes in the dry sub-humid region of Ghana. 2018 , 4, 919-933	14
634	Climate shapes the protein abundance of dominant soil bacteria. 2018 , 640-641, 18-21	10
633	Discrete taxa of saprotrophic fungi respire different ages of carbon from Antarctic soils. 2018 , 8, 7866	22
632	Alpine soil microbial ecology in a changing world. 2018 , 94,	52
631	Long-Term Climate Regime Modulates the Impact of Short-Term Climate Variability on Decomposition in Alpine Grassland Soils. 2018 , 21, 1580-1592	7
630	Saving global land resources by enhancing eco-efficiency of agroecosystems. 2018 , 73, 100A-106A	14

629 Managing Global Environmental Change. **2018**, 223-264

628 Drivers of postfire soil organic carbon accumulation in the boreal forest. **2018**, 24, 4797-4815 15

627 Plant Communities as Modulators of Soil Carbon Storage. **2018**, 29-71

626 Substrate identity and amount overwhelm temperature effects on soil carbon formation. **2018**, 124, 218-226 13

625 Impact of nitrogen additions on soil microbial respiration and temperature sensitivity in native and agricultural ecosystems in the Brazilian Cerrado. **2018**, 75, 120-127 3

624 Responses of soil respiration and its components to experimental warming in an alpine scrub ecosystem on the eastern Qinghai-Tibet Plateau. **2018**, 643, 1427-1435 11

623 A moisture function of soil heterotrophic respiration that incorporates microscale processes. **2018**, 9, 2562 73

622 Globally rising soil heterotrophic respiration over recent decades. *Nature*, **2018**, 560, 80-83 50.4 210

621 Effects of altered dry season length and plant inputs on soluble soil carbon. **2018**, 99, 2348-2362 32

620 Soil carbon losses due to higher pH offset vegetation gains due to calcium enrichment in an acid mitigation experiment. **2018**, 99, 2363-2373 5

619 Field-warmed soil carbon changes imply high 21st-century modeling uncertainty. **2018**, 15, 3659-3671 16

618 Evaluating the interaction between sediment fluxes, carbon dynamics and biomass production using an integrated model. **2018**,

617 Measurements and Models to Identify Agroecosystem Practices That Enhance Soil Organic Carbon under Changing Climate. **2018**, 47, 579-587 5

616 Plants regulate the effects of experimental warming on the soil microbial community in an alpine scrub ecosystem. **2018**, 13, e0195079 2

615 Pathways regulating decreased soil respiration with warming in a biocrust-dominated dryland. **2018**, 24, 4645-4656 21

614 Plant Secondary Metabolites Missing Pieces in the Soil Organic Matter Puzzle of Boreal Forests. **2018**, 2, 2 19

613 Accelerating rates of Arctic carbon cycling revealed by long-term atmospheric CO measurements. **2018**, 4, eao1167 40

612 The biogeochemical consequences of litter transformation by insect herbivory in the Subarctic: a microcosm simulation experiment. **2018**, 138, 323-336 17

611	Relationship between home-field advantage of litter decomposition and priming of soil organic matter. 2018 , 126, 49-56	17
610	Temperature acclimation and adaptation of enzyme physiology in <i>Neurospora discreta</i> . 2018 , 35, 78-86	7
609	Cropland abandonment enhances soil inorganic nitrogen retention and carbon stock in China: A meta-analysis. 2018 , 29, 3898-3906	13
608	Diffusion limitations and Michaelis-Menten kinetics as drivers of combined temperature and moisture effects on carbon fluxes of mineral soils. 2018 , 15, 5031-5045	10
607	The influence of soil communities on the temperature sensitivity of soil respiration. 2018 , 2, 1597-1602	32
606	Emergent Properties of Microbial Activity in Heterogeneous Soil Microenvironments: Different Research Approaches Are Slowly Converging, Yet Major Challenges Remain. 2018 , 9, 1929	110
605	Quantifying and Comparing Soil Carbon Stocks: Underestimation with the Core Sampling Method. 2018 , 82, 949-959	10
604	WHAT IS CLIMATE CHANGE DOING TO US AND FOR US?. 2018 , 53, 443-461	5
603	Climate, Geography, and Soil Abiotic Properties as Modulators of Soil Carbon Storage. 2018 , 137-165	0
602	Impact of Global Changes on Soil C Storage Possible Mechanisms and Modeling Approaches. 2018 , 245-279	1
601	Effects of artificial warming on different soil organic carbon and nitrogen pools in a subtropical plantation. 2018 , 124, 161-167	22
600	Soil Carbon. 2018 , 1-28	5
599	Assessment of frozen ground organic carbon pool on the Qinghai-Tibet Plateau. 2019 , 19, 128-139	11
598	Irrigation reduces the negative effect of global warming on winter wheat yield and greenhouse gas intensity. 2019 , 646, 290-299	31
597	Reduction of Pb availability during surficial leaching in different types of soils with addition of apatite and oxalic acid. 2019 , 19, 741-749	4
596	Soil Carbon and Nitrogen Stocks and Turnover Following 16 Years of Warming and Litter Addition. 2019 , 22, 110-124	6
595	Organic Matter Management in Cereals Based System: Symbiosis for Improving Crop Productivity and Soil Health. 2019 , 67-92	9
594	Speleothem biomarker evidence for a negative terrestrial feedback on climate during Holocene warm periods. 2019 , 525, 115754	3

593	Responses of soil respiration to experimental warming in an alpine steppe on the Tibetan Plateau. 2019 , 14, 094015	5
592	Microbial community responses reduce soil carbon loss in Tibetan alpine grasslands under short-term warming. 2019 , 25, 3438-3449	13
591	Water scaling of ecosystem carbon cycle feedback to climate warming. 2019 , 5, eaav1131	56
590	Controls of soil organic matter on soil thermal dynamics in the northern high latitudes. 2019 , 10, 3172	30
589	TERN, Australia's land observatory: addressing the global challenge of forecasting ecosystem responses to climate variability and change. 2019 , 14, 095004	17
588	Stand carbon density drivers and changes under future climate scenarios across global forests. 2019 , 449, 117463	4
587	Soil warming and nitrogen deposition alter soil respiration, microbial community structure and organic carbon composition in a coniferous forest on eastern Tibetan Plateau. 2019 , 353, 283-292	22
586	Ammonia Oxidation by the Arctic Terrestrial Thaumarchaeote <i>Nitrosocosmicus arcticus</i> Is Stimulated by Increasing Temperatures. 2019 , 10, 1571	21
585	Climate and Land-Use Change Effects on Soil Carbon Stocks over 150 Years in Wisconsin, USA. 2019 , 11, 1504	12
584	Temperature sensitivity of SOM decomposition governed by aggregate protection and microbial communities. 2019 , 5, eaau1218	48
583	Projected changes of alpine grassland carbon dynamics in response to climate change and elevated CO ₂ concentrations under Representative Concentration Pathways (RCP) scenarios. 2019 , 14, e0215261	2
582	Predicting the loss of organic archaeological deposits at a regional scale in Greenland. 2019 , 9, 9097	13
581	Soil nematode abundance and functional group composition at a global scale. <i>Nature</i> , 2019 , 572, 194-198	30.4
580	Temperature sensitivity of soil respiration across multiple time scales in a temperate plantation forest. 2019 , 688, 479-485	16
579	What do we know about soil carbon destabilization?. 2019 , 14, 083004	49
578	Soil for Sustainable Environment and Ecosystems Management. 2019 , 189-221	13
577	Direct observation of permafrost degradation and rapid soil carbon loss in tundra. 2019 , 12, 627-631	85
576	Microbial responses to warming enhance soil carbon loss following translocation across a tropical forest elevation gradient. 2019 , 22, 1889-1899	18

575	Climate warming alters subsoil but not topsoil carbon dynamics in alpine grassland. 2019 , 25, 4383-4393	35
574	The carbon sink due to shrub growth on Arctic tundra: a case study in a carbon-poor soil in eastern Canada. 2019 , 1, 091001	8
573	Grassland belowground feedbacks and climate change. 2019 , 203-217	
572	A meta-analysis of global fungal distribution reveals climate-driven patterns. 2019 , 10, 5142	99
571	Vegetation, pH and Water Content as Main Factors for Shaping Fungal Richness, Community Composition and Functional Guilds Distribution in Soils of Western Greenland. 2019 , 10, 2348	15
570	Community-level respiration of prokaryotic microbes may rise with global warming. 2019 , 10, 5124	25
569	Valuation of Total Soil Carbon Stocks in the Contiguous United States Based on the Avoided Social Cost of Carbon Emissions. 2019 , 8, 157	14
568	Solvent-Free Fabrication of Flexible and Robust Superhydrophobic Composite Films with Hierarchical Micro/Nanostructures and Durable Self-Cleaning Functionality. 2019 , 11, 44691-44699	17
567	Effects of climate warming on Sphagnum photosynthesis in peatlands depend on peat moisture and species-specific anatomical traits. 2019 , 25, 3859-3870	24
566	The global soil community and its influence on biogeochemistry. 2019 , 365,	240
565	Sustainable Agriculture Reviews 29. 2019 ,	1
564	Plant roots increase both decomposition and stable organic matter formation in boreal forest soil. 2019 , 10, 3982	49
563	Loss of soil organic carbon in Swiss long-term agricultural experiments over a wide range of management practices. 2019 , 286, 106654	29
562	Nutrient scarcity strengthens soil fauna control over leaf litter decomposition in tropical rainforests. 2019 , 286, 20191300	11
561	Potential climate change effects on the geochemical stability of waste and mobility of elements in receiving environments for Canadian metal mines south of 60°N. 2019 , 27, 478-518	2
560	Increased CO ₂ efflux due to long-term experimental summer warming and litter input in subarctic tundra [CO ₂ fluxes at snowmelt, in growing season, fall and winter. 2019 , 444, 365-382	5
559	Dynamics of deep soil carbon – Insights from $\delta^{14}\text{C}$ time series across a climatic gradient. 2019 , 16, 3233-3246	11
558	The ecologist who wants to map everything. <i>Nature</i> , 2019 , 573, 478-481	50.4 2

557	Increasing Temperature and Microplastic Fibers Jointly Influence Soil Aggregation by Saprobic Fungi. 2019 , 10, 2018	35
556	A comprehensive albedo model for solar energy applications: Geometric spectral albedo. 2019 , 255, 113867	12
555	Short-Term Response of Soil Microbial Community to Field Conversion from Dryland to Paddy under the Land Consolidation Process in North China. 2019 , 9, 216	11
554	Soil organic carbon stock as an indicator for monitoring land and soil degradation in relation to United Nations' Sustainable Development Goals. 2019 , 30, 824-838	63
553	Soil microbial restoration strategies for promoting climate-ready prairie ecosystems. 2019 , 29, e01858	9
552	Integrating policy and ecology systems to achieve path dependent climate solutions. 2019 , 98, 54-60	10
551	Scientists' warning to humanity: microorganisms and climate change. 2019 , 17, 569-586	516
550	A global, empirical, harmonised dataset of soil organic carbon changes under perennial crops. 2019 , 6, 57	5
549	Increasing microbial carbon use efficiency with warming predicts soil heterotrophic respiration globally. 2019 , 25, 3354-3364	29
548	Step back from the forest and step up to the Bonn Challenge: how a broad ecological perspective can promote successful landscape restoration. 2019 , 27, 705	38
547	Soil Nitrogen and Greenhouse Gas Dynamics in a Temperate Grassland under Experimental Warming and Defoliation. 2019 , 83, 780-790	5
546	Drivers of C cycling in three arctic-alpine plant communities. 2019 , 51, 128-147	3
545	Carbon control on terrestrial ecosystem function across contrasting site productivities: the carbon connection revisited. 2019 , 100, e02695	9
544	Long-term impacts of warming drive decomposition and accelerate the turnover of labile, not recalcitrant, carbon. 2019 , 10, e02715	7
543	Storage of organic carbon in the soils of Mexican temperate forests. 2019 , 446, 115-125	9
542	Soil Organic Matter Temperature Sensitivity Cannot be Directly Inferred From Spatial Gradients. 2019 , 33, 761-776	10
541	Higher species diversity improves soil water infiltration capacity by increasing soil organic matter content in semiarid grasslands. 2019 , 30, 1599-1606	14
540	Accumulation of soil carbon under elevated CO unaffected by warming and drought. 2019 , 25, 2970-2977	10

539	A Mechanistic Model of Microbially Mediated Soil Biogeochemical Processes: A Reality Check. 2019 , 33, 620-648	24
538	Evidence for Edge Enhancements of Soil Respiration in Temperate Forests. 2019 , 46, 4278-4287	7
537	The Case for Digging Deeper: Soil Organic Carbon Storage, Dynamics, and Controls in Our Changing World. 2019 , 3, 28	42
536	Microbial responses to experimental soil warming: Five testable hypotheses. 2019 , 141-156	1
535	Mycorrhizal mediation of plant and ecosystem responses to soil warming. 2019 , 157-173	
534	Temperature sensitivity of soil carbon. 2019 , 175-208	7
533	The role of the physical properties of soil in determining biogeochemical responses to soil warming. 2019 , 209-244	4
532	Responses of grasslands to experimental warming. 2019 , 347-384	1
531	Soil warming effects on tropical forests with highly weathered soils. 2019 , 385-439	7
530	Projections of future soil temperature in northeast Iran. 2019 , 349, 11-24	11
529	Estimation of plot-level soil carbon stocks in China's forests using intensive soil sampling. 2019 , 348, 107-114	6
528	Evaluating CENTURY and Yasso soil carbon models for CO ₂ emissions and organic carbon stocks of boreal forest soil with Bayesian multi-model inference. 2019 , 70, 847	11
527	Sensitivity of global soil carbon stocks to combined nutrient enrichment. 2019 , 22, 936-945	31
526	Unlocking the Potential of Soil Organic Carbon: A Feasible Way Forward. 2019 , 373-395	2
525	International Yearbook of Soil Law and Policy 2018. 2019 ,	4
524	Experimental warming reduced topsoil carbon content and increased soil bacterial diversity in a subtropical planted forest. 2019 , 133, 155-164	21
523	Remote Sensing Techniques for Soil Organic Carbon Estimation: A Review. 2019 , 11, 676	93
522	Vegetation and precipitation shifts interact to alter organic and inorganic carbon storage in cold desert soils. 2019 , 10, e02655	6

521	Recent peat and carbon accumulation following the Little Ice Age in northwestern Québec, Canada. 2019 , 14, 075002	14
520	Carbon emissions from cropland expansion in the United States. 2019 , 14, 045009	26
519	Coupled carbon and nitrogen losses in response to seven years of chronic warming in subarctic soils. 2019 , 134, 152-161	13
518	Interaction between tannins and fungal necromass stabilizes fungal residues in boreal forest soils. 2019 , 223, 16-21	41
517	Microbial Organic Matter Utilization in High-Arctic Streams: Key Enzymatic Controls. 2019 , 78, 539-554	13
516	Effects of climate warming on carbon fluxes in grasslands- A global meta-analysis. 2019 , 25, 1839-1851	47
515	Competition alters predicted forest carbon cycle responses to nitrogen availability and elevated CO ₂ : simulations using an explicitly competitive, game-theoretic vegetation demographic model. 2019 , 16, 4577-4599	5
514	Evaluating the effects of soil erosion and productivity decline on soil carbon dynamics using a model-based approach. 2019 , 5, 367-382	7
513	Tidal wetland resilience to sea level rise increases their carbon sequestration capacity in United States. 2019 , 10, 5434	26
512	Watershed geomorphology modifies the sensitivity of aquatic ecosystem metabolism to temperature. 2019 , 9, 17619	8
511	The State of the Soil Organic Matter and Nutrients in the Long-Term Field Experiments with Application of Organic and Mineral Fertilizers in Different Soil-Climate Conditions in the View of Expecting Climate Change. 2019 ,	4
510	Arctic Soil Governs Whether Climate Change Drives Global Losses or Gains in Soil Carbon. 2019 , 46, 14486-14495	5
509	Temperate forests and soils. 2019 , 36, 83-108	7
508	Soil moisture drives microbial controls on carbon decomposition in two subtropical forests. 2019 , 130, 185-194	28
507	Global trends in carbon sinks and their relationships with CO ₂ and temperature. 2019 , 9, 73-79	77
506	Is Himalayan-Tibetan Plateau "drying"? Historical estimations and future trends of surface soil moisture. 2019 , 658, 374-384	16
505	Lithology and coarse fraction adjusted bulk density estimates for determining total organic carbon stocks in dryland soils. 2019 , 337, 844-852	8
504	Litter decomposition: effects of temperature driven by soil moisture and vegetation type. 2019 , 435, 187-200	52

503	Emissions from dry inland waters are a blind spot in the global carbon cycle. 2019 , 188, 240-248	51
502	Variations in soil nutrient availability across Tibetan grassland from the 1980s to 2010s. 2019 , 338, 197-205	18
501	Heterotrophic bacterial production measured on soil microaggregates sampled using a Biological Laser Printer. 2019 , 131, 176-181	1
500	Large-Scale Landscape Drivers of CO ₂ , CH ₄ , DOC, and DIC in Boreal River Networks. 2019 , 33, 125-142	21
499	Soil microbial respiration adapts to ambient temperature in global drylands. 2019 , 3, 232-238	47
498	Cross-biome patterns in soil microbial respiration predictable from evolutionary theory on thermal adaptation. 2019 , 3, 223-231	54
497	The known and the unknown in soil microbial ecology. 2019 , 95,	33
496	Pathways of mineral-associated soil organic matter formation: Integrating the role of plant carbon source, chemistry, and point of entry. 2019 , 25, 12-24	146
495	Isotope composition of dissolved organic carbon in runoff and peat leachates from a Central European wetland: Temporal and spatial variability in DOC sources. 2019 , 173, 217-225	3
494	Climate change, agricultural inputs, cropping diversity, and environment affect soil carbon and respiration: A case study in Saskatchewan, Canada. 2019 , 337, 664-678	13
493	Human activities in a tropical Mexican desert: Impact of rainfed agriculture and firewood extraction on vegetation and soil. 2019 , 30, 494-503	6
492	Changes in the Rock-Eval signature of soil organic carbon upon extreme soil warming and chemical oxidation - A comparison. 2019 , 337, 181-190	9
491	Status and trends in Arctic vegetation: Evidence from experimental warming and long-term monitoring. 2020 , 49, 678-692	68
490	A review of environmental droughts: Increased risk under global warming?. 2020 , 201, 102953	102
489	Effects of plant diversity on soil carbon in diverse ecosystems: a global meta-analysis. 2019 , 95, 167	44
488	Conceptualizing soil organic matter into particulate and mineral-associated forms to address global change in the 21st century. 2020 , 26, 261-273	212
487	Soil fauna diversity increases CO but suppresses N O emissions from soil. 2020 , 26, 1886-1898	6
486	Quantifying how changing mangrove cover affects ecosystem carbon storage in coastal wetlands. 2020 , 101, e02916	15

485	Browning of freshwaters: Consequences to ecosystem services, underlying drivers, and potential mitigation measures. 2020 , 49, 375-390	62
484	Bound to Fail? Exploring the Systemic Pathologies of CSR and Their Implications for CSR Research. 2020 , 59, 1303-1338	19
483	Sugarcane straw management for bioenergy: effects of global warming on greenhouse gas emissions and soil carbon storage. 2020 , 25, 559-577	2
482	Increased microbial growth, biomass, and turnover drive soil organic carbon accumulation at higher plant diversity. 2020 , 26, 669-681	81
481	Nutrient Dynamics for Sustainable Crop Production. 2020 ,	7
480	Temperature changes affect multi-trophic interactions among pines, mycorrhizal fungi, and soil nematodes in a microcosm experiment. 2020 , 78, 150595	7
479	Soil microbial biomass increases along elevational gradients in the tropics and subtropics but not elsewhere. 2020 , 29, 345-354	15
478	A simplified method to assess seismic behavior of reinforced concrete columns. 2020 , 21, 151-168	4
477	Interannual variation of terrestrial carbon cycle: Issues and perspectives. 2020 , 26, 300-318	83
476	Responses of surface SOC to long-term experimental warming vary between different heath types in the high Arctic tundra. 2020 , 71, 752-767	5
475	Divergent carbon cycle response of forest and grass-dominated northern temperate ecosystems to record winter warming. 2020 , 26, 1519-1531	6
474	Food Web Uncertainties Influence Predictions of Climate Change Effects on Soil Carbon Sequestration in Heathlands. 2020 , 79, 686-693	1
473	Shrub encroachment decreases soil inorganic carbon stocks in Mongolian grasslands. 2020 , 108, 678-686	8
472	Temperature sensitivity increases with decreasing soil carbon quality in forest ecosystems across northeast China. 2020 , 160, 373-384	1
471	Arctic soil carbon turnover controlled by experimental snow addition, summer warming and shrub removal. 2020 , 142, 107698	6
470	Multi-environmental impacts of biofuel production in the U.S. Corn Belt: A coupled hydro-biogeochemical modeling approach. 2020 , 251, 119561	14
469	Monitoring soil organic carbon in alpine soils using in situ vis-NIR spectroscopy and a multilayer perceptron. 2020 , 31, 1026-1038	17
468	A systemic overreaction to years versus decades of warming in a subarctic grassland ecosystem. 2020 , 4, 101-108	20

467	Wildfire effects on BVOC emissions from boreal forest floor on permafrost soil in Siberia. 2020 , 711, 134851	12
466	Plant roots stimulate the decomposition of complex, but not simple, soil carbon. 2020 , 34, 899-910	12
465	Accounting for soil organic carbon role in land use contribution to climate change in agricultural LCA: which methods? Which impacts?. 2020 , 25, 1217-1230	15
464	Potential feedback mediated by soil microbiome response to warming in a glacier forefield. 2020 , 26, 697-708	12
463	Warming alters surface soil organic matter composition despite unchanged carbon stocks in a Tibetan permafrost ecosystem. 2020 , 34, 911-922	14
462	A global synthesis reveals more response sensitivity of soil carbon flux than pool to warming. 2020 , 20, 1208-1221	5
461	Predicting the climate change impacts on water-carbon coupling cycles for a loess hilly-gully watershed. 2020 , 581, 124388	24
460	Warming-induced global soil carbon loss attenuated by downward carbon movement. 2020 , 26, 7242-7254	13
459	Energy and Climate Policy An Evaluation of Global Climate Change Expenditure 2011-2018. 2020 , 13, 4839	22
458	Organic Carbon Stocks of Mexican Montane Habitats: Variation Among Vegetation Types and Land-Use. 2020 , 8,	3
457	Increasing soil organic carbon and nitrogen stocks along with secondary forest succession in permafrost region of the Daxing'an mountains, northeast China. 2020 , 24, e01258	8
456	Temporal and spatial variations in the mean residence time of soil organic carbon and their relationship with climatic, soil and vegetation drivers. 2020 , 195, 103359	4
455	Baseline of Carbon Stocks in Pinus radiata and Eucalyptus spp. Plantations of Chile. 2020 , 11, 1063	4
454	Unaltered soil microbial community composition, but decreased metabolic activity in a semiarid grassland after two years of passive experimental warming. 2020 , 10, 12327-12340	5
453	Peatland warming strongly increases fine-root growth. 2020 , 117, 17627-17634	29
452	Wild boar grubbing causes organic carbon loss from both top- and sub-soil in an oak forest in central China. 2020 , 464, 118059	7
451	GlobalFungi, a global database of fungal occurrences from high-throughput-sequencing metabarcoding studies. 2020 , 7, 228	42
450	Dynamics of soil metallic nutrients across a 6000-km temperature transect in China. 2020 , 744, 140888	2

449	Multi-year incubation experiments boost confidence in model projections of long-term soil carbon dynamics. 2020 , 11, 5864	6
448	The thermal response of soil microbial methanogenesis decreases in magnitude with changing temperature. 2020 , 11, 5733	9
447	The Carbon Cycle of Terrestrial Ecosystems. 2020 , 141-182	1
446	The Global Carbon and Oxygen Cycles. 2020 , 453-481	
445	Rising Temperature May Trigger Deep Soil Carbon Loss Across Forest Ecosystems. 2020 , 7, 2001242	12
444	Sustained increase in soil respiration after nine years of warming in an alpine meadow on the Tibetan Plateau. 2020 , 379, 114641	5
443	Soil and environmental issues in sandy soils. 2020 , 208, 103295	39
442	Land-use change and Biogeochemical controls of soil CO ₂ , N ₂ O and CH ₄ fluxes in Cameroonian forest landscapes. 2020 , 17, 45-67	5
441	Response of Soil Respiration and Its Components to Warming and Dominant Species Removal along an Elevation Gradient in Alpine Meadow of the Qinghai-Tibetan Plateau. 2020 , 54, 10472-10482	9
440	Rapid Net Carbon Loss From a Whole-Ecosystem Warmed Peatland. 2020 , 1, e2020AV000163	30
439	Soil carbon loss by experimental warming in a tropical forest. <i>Nature</i> , 2020 , 584, 234-237	50.4 51
438	Using remote sensing for monitoring the dynamic of soil organic carbon concentration in Lake Valencia basin, Venezuela, based on Landsat 8 data. 2020 , 169, 01021	
437	Integrative ecology in the era of big data—from observation to prediction. 2020 , 63, 1429-1442	6
436	Predicting soil carbon changes in switchgrass grown on marginal lands under climate change and adaptation strategies. 2020 , 12, 742-755	12
435	Research challenges and opportunities for using big data in global change biology. 2020 , 26, 6040-6061	15
434	Climate change as a driver of emerging risks for food and feed safety, plant, animal health and nutritional quality. 2020 , 17, 1881E	9
433	Carbon budgets for soil and plants respond to long-term warming in an Alaskan boreal forest. 2020 , 150, 345-353	0
432	Significant stream chemistry response to temperature variations in a high-elevation mountain watershed. 2020 , 1,	8

431	Sources of seasonal wetland methane emissions in permafrost regions of the Qinghai-Tibet Plateau. 2020 , 10, 7520	3
430	Simulated rhizosphere deposits induce microbial N-mining that may accelerate shrubification in the subarctic. 2020 , 101, e03094	12
429	Soil carbon release responses to long-term versus short-term climatic warming in an arid ecosystem. 2020 , 17, 781-792	3
428	Warming yields distinct accumulation patterns of microbial residues in dry and wet alpine grasslands on the Qinghai-Tibetan Plateau. 2020 , 56, 881-892	9
427	Warming and disturbance alter soil microbiome diversity and function in a northern forest ecotone. 2020 , 96,	4
426	Temperature and moisture driven changes in soil carbon sequestration and mineralization under biochar addition. 2020 , 265, 121921	11
425	Increased soil release of greenhouse gases shrinks terrestrial carbon uptake enhancement under warming. 2020 , 26, 4601-4613	23
424	Connections and Feedback: Aquatic, Plant, and Soil Microbiomes in Heterogeneous and Changing Environments. 2020 , 70, 548-562	5
423	Changes in soil organic carbon under perennial crops. 2020 , 26, 4158-4168	42
422	Tracking changes in soil organic carbon across the heterogeneous agricultural landscape of the Lower Fraser Valley of British Columbia. 2020 , 732, 138994	2
421	Divergent responses of soil organic carbon to afforestation. 2020 , 3, 694-700	39
420	Assessment of Changes on Rhizospheric Soil Microbial Biomass, Enzymes Activities and Bacterial Functional Diversity under Nickel Stress in Presence of Alfafa Plants. 2020 , 29, 823-843	2
419	Exploring variability in rangeland soil organic carbon stocks across California (USA) using a voluntary monitoring network. 2020 , 22, e00304	3
418	Estimating soil organic carbon density in Northern China's agro-pastoral ecotone using vis-NIR spectroscopy. 2020 , 20, 3698-3711	5
417	Clarifying the response of soil organic carbon storage to increasing temperature through minimizing the precipitation effect. 2020 , 374, 114398	10
416	Contrasting mechanisms underlie short- and longer-term soil respiration responses to experimental warming in a dryland ecosystem. 2020 , 26, 5254-5266	10
415	Temperature controls production but hydrology regulates export of dissolved organic carbon at the catchment scale. 2020 , 24, 945-966	36
414	Depletion of soil carbon and aggregation after strong warming of a subarctic Andosol under forest and grassland cover. 2020 , 6, 115-129	6

413	Modeling the processes of soil moisture in regulating microbial and carbon-nitrogen cycling. 2020 , 585, 124777	8
412	Terrestrial fluxes of carbon in GCP carbon budgets. 2020 , 26, 3006-3014	13
411	Expansion of shrubs could result in local loss of soil bacterial richness in Western Greenland. 2020 , 96,	0
410	Progressive nitrogen limitation across the Tibetan alpine permafrost region. 2020 , 11, 3331	24
409	Assessing synergistic effects of no-tillage and cover crops on soil carbon dynamics in a long-term maize cropping system under climate change. 2020 , 291, 108090	14
408	Nutrient availability controls the impact of mammalian herbivores on soil carbon and nitrogen pools in grasslands. 2020 , 26, 2060	22
407	Soil carbon stocks in Indonesian (agro) forest transitions: Compaction conceals lower carbon concentrations in standard accounting. 2020 , 294, 106879	32
406	Substrate quality and not dominant plant community determines the vertical distribution and C assimilation of enchytraeids in peatlands. 2020 , 34, 1280-1290	0
405	Origin of volatile organic compound emissions from subarctic tundra under global warming. 2020 , 26, 1908-1925	23
404	Effects of desertification on permafrost environment in Qinghai-Tibetan Plateau. 2020 , 262, 110302	5
403	The environmental consequences of climate-driven agricultural frontiers. 2020 , 15, e0228305	38
402	Warming and increased precipitation indirectly affect the composition and turnover of labile-fraction soil organic matter by directly affecting vegetation and microorganisms. 2020 , 714, 136787	30
401	Translocating subtropical forest soils to a warmer region alters microbial communities and increases the decomposition of mineral-associated organic carbon. 2020 , 142, 107707	5
400	Analysis of global marine oil trade based on automatic identification system (AIS) data. 2020 , 83, 102637	19
399	Flooding Irrigation Weakens the Molecular Ecological Network Complexity of Soil Microbes During the Process of Dryland-to-Paddy Conversion. 2020 , 17,	7
398	Soil Organic Carbon Across Mexico and the Conterminous United States (1991-2010). 2020 , 34, no	13
397	Compensatory Thermal Adaptation of Soil Microbial Respiration Rates in Global Croplands. 2020 , 34, e2019GB006507	8
396	Editorial: Critical Zone (CZ) Export to Streams as Indicator for CZ Structure and Function. 2020 , 8,	

395	Soil-plant-atmosphere interactions: structure, function, and predictive scaling for climate change mitigation. 2021 , 461, 5-27	18
394	Warming and elevated CO ₂ interactively affect the photosynthetic carbon of maize plant retained in major farming soils. 2021 , 67, 474-486	3
393	Spatial distribution of soil organic carbon and total nitrogen in disturbed <i>Carex tussock</i> wetland. 2021 , 120, 106930	12
392	Dynamics of water-stable aggregates associated organic carbon assessed from delta C-13 changes following temperate natural forest development in China. 2021 , 205, 104782	5
391	Soil organic carbon and total nitrogen stocks as affected by vegetation types and altitude across the mountainous regions in the Yunnan Province, south-western China. 2021 , 196, 104872	14
390	Effects of drought and rainfall events on soil autotrophic respiration and heterotrophic respiration. 2021 , 308, 107267	12
389	Landscape changes and their hydrologic effects: Interactions and feedbacks across scales. 2021 , 212, 103466	6
388	Warming and microbial uptake influence the fate of added soil carbon across a Hawai'ian weathering gradient. 2021 , 153, 108080	3
387	Resilience of subarctic Scots pine and Norway spruce forests to extreme weather events. 2021 , 296, 108239	2
386	Drivers of carbon stocks in forest edges across Europe. 2021 , 759, 143497	11
385	Effects of warming and clipping on CH ₄ and N ₂ O fluxes in an alpine meadow. 2021 , 297, 108278	5
384	Shifts in plant composition mediate grazing effects on carbon cycling in grasslands. 2021 , 58, 518-527	2
383	Long-term, amplified responses of soil organic carbon to nitrogen addition worldwide. 2021 , 27, 1170-1180	26
382	Toward catchment hydro-biogeochemical theories. 2021 , 8, e1495	22
381	Functional diversity of decomposers modulates litter decomposition affected by plant invasion along a climate gradient. 2021 , 109, 1236-1249	16
380	Extremophilic fungi at the interface of climate change. 2021 , 1-22	1
379	An agenda for ethics and justice in adaptation to climate change. 2021 , 13, 1-9	24
378	Organic Matter Decomposition. 2021 , 81-102	2

377	Translating a Global Emission-Reduction Framework for Subnational Climate Action: A Case Study from the State of Georgia. 2021 , 67, 205-227	6
376	Topsoil carbon-selective transport in an eroding soil landscape with vegetation restoration. 2021 , 32, 2061-2073	1
375	Temporal changes in global soil respiration since 1987. 2021 , 12, 403	12
374	Inactive and inefficient: Warming and drought effect on microbial carbon processing in alpine grassland at depth. 2021 , 27, 2241-2253	11
373	Large-scale importance of microbial carbon use efficiency and necromass to soil organic carbon. 2021 , 27, 2039-2048	28
372	No evidence for increased loss of old carbon in a temperate organic soil after 13 years of simulated climatic warming despite increased CO emissions. 2021 , 27, 1836-1847	0
371	Microbial Functional Responses Explain Alpine Soil Carbon Fluxes under Future Climate Scenarios. 2021 , 12,	0
370	Warming effects on wood decomposition depend on fungal assembly history. 2021 , 109, 1919-1930	4
369	Greening of the earth does not compensate for rising soil heterotrophic respiration under climate change. 2021 , 27, 2029-2038	7
368	Soil microbial diversity-biomass relationships are driven by soil carbon content across global biomes. 2021 , 15, 2081-2091	31
367	A unified theory for organic matter accumulation. 2021 , 118,	16
366	Forests of the future: Climate change impacts and implications for carbon storage in the Pacific Northwest, USA. 2021 , 482, 118886	14
365	Sea-level rise enhances carbon accumulation in United States tidal wetlands. 2021 , 4, 425-433	2
364	Soil Biogeochemical Cycle Couplings Inferred from a Function-Taxon Network. 2021 , 2021, 7102769	6
363	Temperature sensitivity of soil microbial respiration in soils with lower substrate availability is enhanced more by labile carbon input. 2021 , 154, 108148	3
362	Root presence modifies the long-term decomposition dynamics of fungal necromass and the associated microbial communities in a boreal forest. 2021 , 30, 1921-1935	7
361	Development of energetic and enzymatic limitations on microbial carbon cycling in soils. 2021 , 153, 191-213	1
360	The temperature sensitivity of soil: microbial biodiversity, growth, and carbon mineralization. 2021 , 15, 2738-2747	9

359	Microbial metabolism and necromass mediated fertilization effect on soil organic carbon after long-term community incubation in different climates. 2021 , 15, 2561-2573	5
358	Synergies Among Environmental Science Research and Monitoring Networks: A Research Agenda. 2021 , 9, e2020EF001631	2
357	Temperature sensitivity of SOM decomposition is linked with a K-selected microbial community. 2021 , 27, 2763-2779	15
356	High-resolution forest carbon modelling for climate mitigation planning over the RGGI region, USA. 2021 , 16, 045014	6
355	Warming homogenizes apparent temperature sensitivity of ecosystem respiration. 2021 , 7,	6
354	Species interactions amplify the temperature dependence of microbial community respiration.	
353	Changes in the non-growing season soil heterotrophic respiration rate are driven by environmental factors after fire in a cold temperate forest ecosystem. 2021 , 78, 1	
352	Changes in carbon stocks and its economic valuation under a changing land use pattern: A multitemporal study in Konar catchment, India. 2021 , 32, 3573-3587	4
351	Metabolic capabilities mute positive response to direct and indirect impacts of warming throughout the soil profile. 2021 , 12, 2089	7
350	Optimizing Carbon Sequestration in Croplands: A Synthesis. 2021 , 11, 882	23
349	A dual response. 2021 , 14, 262-263	1
348	Direct and indirect disturbance impacts in forests. 2021 , 24, 1225-1236	7
347	Different climate sensitivity of particulate and mineral-associated soil organic matter. 2021 , 14, 295-300	34
346	Can moisture affect temperature dependences of microbial growth and respiration?. 2021 , 156, 108223	13
345	How do boreal forest soils store carbon?. 2021 , 43, e2100010	0
344	Thermal stability of soil organic carbon after long-term manure application across land uses and tillage systems in an oxisol. 2021 , 200, 105164	3
343	Grassland soil organic carbon stocks along management intensity and warming gradients. 2021 , 76, 186-195	7
342	Modelled land use and land cover change emissions: A spatio-temporal comparison of different approaches. 2021 , 12, 635-670	10

341	Increased CO emissions surpass reductions of non-CO emissions more under higher experimental warming in an alpine meadow. 2021 , 769, 144559	4
340	Responses of soil organic carbon and crop yields to 33-year mineral fertilizer and straw additions under different tillage systems. 2021 , 209, 104943	6
339	Five years of whole-soil warming led to loss of subsoil carbon stocks and increased CO efflux. 2021 , 7,	23
338	Soil carbon accumulation with increasing temperature under both managed and natural vegetation restoration in calcareous soils. 2021 , 767, 145298	7
337	Temperature Increases Soil Respiration Across Ecosystem Types and Soil Development, But Soil Properties Determine the Magnitude of This Effect. 1	1
336	Long-term warming manipulations reveal complex decomposition responses across different tundra vegetation types.	2
335	Near-infrared spectroscopy: Alternative method for assessment of stable carbon isotopes in various soil profiles in Chile. 2021 , 25, e00397	1
334	Plant community composition alters moisture and temperature sensitivity of soil respiration in semi-arid shrubland. 2021 , 197, 1003-1015	1
333	Impact of climate change on greenhouse gas emissions and water balance in a dryland-cropping region with variable precipitation. 2021 , 287, 112301	5
332	A study over 33 years shows that carbon and nitrogen stocks in a subtropical soil are increasing under native vegetation in a changing climate. 2021 , 772, 145019	6
331	Evidence for large microbial-mediated losses of soil carbon under anthropogenic warming. 2021 , 2, 507-517	13
330	Factors of soil formation in the 21st century. 2021 , 391, 114960	5
329	Biodiversity-productivity relationships are key to nature-based climate solutions. 2021 , 11, 543-550	21
328	Northern High-Latitude Organic Soils As a Vital Source of River-Borne Dissolved Iron to the Ocean. 2021 , 55, 9672-9690	2
327	Historical and future carbon stocks in forests of northern Ontario, Canada. 2021 , 16, 21	
326	Long-term geothermal warming reduced stocks of carbon but not nitrogen in a subarctic forest soil. 2021 , 27, 5341-5355	4
325	SOC changes were more sensitive in alpine grasslands than in temperate grasslands during grassland transformation in China: A meta-analysis. 2021 , 308, 127430	4
324	Varying soil respiration under long-term warming and clipping due to shifting carbon allocation toward below-ground. 2021 , 304-305, 108408	2

323	Lowland plant migrations into alpine ecosystems amplify soil carbon loss under climate warming.	
322	Kinetic Properties of Microbial Exoenzymes Vary with Soil Depth but Have Similar Temperature Sensitivities Through the Soil Profile.	
321	Warming and elevated ozone induce tradeoffs between fine roots and mycorrhizal fungi and stimulate organic carbon decomposition. 2021 , 7,	10
320	Short-term effects of land consolidation of dryland-to-paddy conversion on soil CO flux. 2021 , 292, 112691	2
319	Biogeochemical evolution of soil organic matter composition after a decade of warming and nitrogen addition. 2021 , 156, 161	4
318	Microbial activity in alpine soils under climate change. 2021 , 783, 147012	8
317	Projected soil organic carbon loss in response to climate warming and soil water content in a loess watershed. 2021 , 16, 24	7
316	Lower relative abundance of ectomycorrhizal fungi under a warmer and drier climate is linked to enhanced soil organic matter decomposition. 2021 , 232, 1399-1413	1
315	Biotic and abiotic drivers of carbon, nitrogen and phosphorus stocks in a temperate rainforest. 2021 , 494, 119341	4
314	Decoupling of soil nitrogen and phosphorus dynamics along a temperature gradient on the Qinghai-Tibetan Plateau. 2021 , 396, 115084	1
313	Simulated acid rain offset a warming-induced increase in soil respiration but did not impact the temperature sensitivity of soil respiration in a cropland. 2021 , 164, 103936	2
312	Fire impacts tropical communities of soil fungi through changes to plant community composition, litter and soil chemistry.	
311	Low-intensity land-use enhances soil microbial activity, biomass and fungal-to-bacterial ratio in current and future climates. 2021 , 58, 2614	2
310	Evaluation of the Terrestrial Ecosystem Model Biome-BGCMuSo for Modelling Soil Organic Carbon under Different Land Uses. 2021 , 10, 968	0
309	Shifts in Soil Structure, Biological, and Functional Diversity Under Long-Term Carbon Deprivation. 2021 , 12, 735022	1
308	Plateau pika offsets the positive effects of warming on soil organic carbon in an alpine swamp meadow on the Tibetan Plateau. 2021 , 204, 105417	2
307	Long-term warming and nitrogen fertilization affect C-, N- and P-acquiring hydrolase and oxidase activities in winter wheat monocropping soil. 2021 , 11, 18542	1
306	Exploring the multiple land degradation pathways across the planet. 2021 , 220, 103689	23

- 305 Climate Change Can Accelerate Depletion of Montane Grassland C Stocks. **2021**, 35, e2020GB006792 1
- 304 Plant and microbial regulations of soil carbon dynamics under warming in two alpine swamp meadow ecosystems on the Tibetan Plateau. **2021**, 790, 148072 7
- 303 Key microorganisms mediate soil carbon-climate feedbacks in forest ecosystems. **2021**, 66, 2036-2044 0
- 302 Temperature and precipitation significantly influence the interactions between arbuscular mycorrhizal fungi and diazotrophs in karst ecosystems. **2021**, 497, 119464 2
- 301 Warming-driven migration of core microbiota indicates soil property changes at continental scale. **2021**, 66, 2025-2035 1
- 300 Elevated temperature and nitrogen deposition did not affect the impacts of arbuscular mycorrhizal fungi on soil carbon or nitrogen stocks in a temperate meadow. **2021**, 131, 108209
- 299 Effects of fire on soil respiration and its components in a Dahurian larch (*Larix gmelinii*) forest in northeast China: Implications for forest ecosystem carbon cycling. **2021**, 402, 115273 1
- 298 Effects of stream ecosystem metabolisms on CO₂ emissions in two headwater catchments, Southeastern China. **2021**, 130, 108136 3
- 297 The effectiveness of digital soil mapping with temporal variables in modeling soil organic carbon changes. **2022**, 405, 115407 1
- 296 Biochar-induced priming effects in soil via modifying the status of soil organic matter and microflora: A review. **2022**, 805, 150304 2
- 295 A deeper look at crop residue and soil warming impact on the soil C pools. **2022**, 215, 105192 2
- 294 Enzymic moderations of bacterial and fungal communities on short- and long-term warming impacts on soil organic carbon. **2022**, 804, 150197 1
- 293 Metagenomics for Improving Soil Fertility. **2021**, 267-282
- 292 The Brigalow Catchment Study: V*. Clearing and burning brigalow (*Acacia harpophylla*) in Queensland, Australia, temporarily increases surface soil fertility prior to nutrient decline under cropping or grazing. **2021**, 59, 146 2
- 291 Highly reflective algae for enhancing climate change resilience in rice production. **2021**, 10, e272
- 290 Carbon and Nitrogen Cycling in Agroecosystems: An Overview. **2020**, 1-15 3
- 289 Organic Fertilizers for Sustainable Soil and Environmental Management. **2020**, 289-313 2
- 288 Patterns and trends of topsoil carbon in the UK: Complex interactions of land use change, climate and pollution. **2020**, 729, 138330 7

287	A 2018 Horizon Scan of Emerging Issues for Global Conservation and Biological Diversity. 2018 , 33, 47-58	80
286	Pronounced and unavoidable impacts of low-end global warming on northern high-latitude land ecosystems. 2020 , 15, 044006	11
285	We cannot shrug off the shoulder seasons: addressing knowledge and data gaps in an Arctic headwater. 2020 , 15, 104027	20
284	Soil carbon sequestration simulated in CMIP6-LUMIP models: implications for climatic mitigation. 2020 , 15, 124061	12
283	Biotic and abiotic drivers of soil microbial functions across tree diversity experiments.	1
282	GlobalFungi: Global database of fungal records from high-throughput-sequencing metabarcoding studies.	2
281	Biogenic silica accumulation varies across tussock tundra plant functional type. 2017 , 31, 2177-2187	8
280	Widespread production of nonmicrobial greenhouse gases in soils. 2017 , 23, 4472-4482	30
279	Effect of straw incorporation on methane emission in rice paddy: conversion factor and smart straw management. 2019 , 62,	5
278	A Bayesian approach to evaluation of soil biogeochemical models. 2020 , 17, 4043-4057	1
277	Evaluating two soil carbon models within the global land surface model JSBACH using surface and spaceborne observations of atmospheric CO ₂ . 2020 , 17, 5721-5743	1
276	Spatial and temporal patterns of global soil heterotrophic respiration in terrestrial ecosystems. 2020 , 12, 1037-1051	25
275	Opportunities and trade-offs for expanding agriculture in Canada's North: an ecosystem service perspective. 2021 , 6, 1728-1752	3
274	Climate Warming Weakens the Negative Effect of Nitrogen Addition on the Microbial Contribution to Soil Carbon Pool in an Alpine Meadow.	
273	Solar Photovoltaics. 2021 , 60-71	
272	Policy Frameworks and Institutions for Decarbonisation: The Energy Sector as "litmus Test" 2021 , 7-38	
271	Long-Term Drought and Warming Alter Soil Bacterial and Fungal Communities in an Upland Heathland. 1	0
270	Interannual climate variability mediates changes in carbon and nitrogen pools caused by annual grass invasion in a semiarid shrubland. 2022 , 28, 267-284	3

269 Cities. **2021**, 271-300

268 Decarbonisation Strategies and Economic Opportunities in Australia. **2021**, 203-236

267 Index. **2021**, 668-680

266 Hydropower. **2021**, 125-138

265 Transitioning to a Prosperous, Resilient and Carbon-Free Economy: A Guide for Decision-Makers. **2021**,

264 Warming effects on arctic tundra biogeochemistry are limited but habitat-dependent: a meta-analysis. **2021**, 12, e03777 2

263 Agriculture. **2021**, 501-526

262 Transport. **2021**, 389-407

261 Nuclear Energy. **2021**, 105-124

260 Financing the Transition. **2021**, 621-645

259 Example Economies. **2021**, 201-268

258 Forests. **2021**, 462-500

257 Energy Storage. **2021**, 139-172

256 Solar Thermal Energy. **2021**, 72-104 0

255 Improving the Governance of Governments. **2021**, 591-620

254 Trade and Climate Change. **2021**, 571-590 0

253 Land Use, Forests and Agriculture. **2021**, 439-526

252 Cities and Industry. **2021**, 269-438

251 Mining, Metals, Oil and Gas. **2021**, 527-568

250 Industry and Manufacturing. **2021**, 408-438

249 Foreword. **2021**, xxv-xxviii

248 Wind Energy. **2021**, 41-59

247 Introduction. **2021**, 1-6

246 Buildings and Precincts. **2021**, 301-337

245 Technologies for Decarbonising the Electricity Sector. **2021**, 39-200

244 Addressing Barriers to Change. **2021**, 569-667

243 Land Use. **2021**, 441-461

242 Social Movements for Change. **2021**, 646-667

241 Decarbonisation Strategies and Economic Opportunities in Indonesia. **2021**, 237-268

240 Mining, Metals, Oil and Gas. **2021**, 529-568

239 The Hydrogen Economy. **2021**, 173-200

238 National Climate Change Adaptation Case Study: Early Adaptation to Climate Change through Climate-Compatible Development and Adaptation Pathways. **2021**, 365-388

1

237 Urban Water. **2021**, 338-364

236 Contribution of above ground litterfall and roots to the soil CO₂ efflux of two sub-tropical *Cunninghamia lanceolata* and *Castanopsis carlesii* forests. **2021**, 311, 108671

0

235 El suelo y su multifuncionalidad: ¿qué ocurre ahí abajo?. **2018**, 25, 1-10

234 Experimental test of temperature and moisture controls on the rate of microbial decomposition of soil organic matter: preliminary results. **2019**, 5, 886-898

233	UNCCD COP 13: From Awareness to Action in a Complex World. 2019 , 229-247	
232	Projected changes of alpine grassland carbon dynamics in response to climate change and elevated CO ₂ concentrations under Representative Concentration Pathways (RCP) scenarios.	0
231	Small Farmers and Sustainable N and P Management: Implications and Potential Under Changing Climate. 2020 , 185-219	1
230	Abiotic and biotic drivers underly short- and long-term soil respiration responses to experimental warming in a dryland ecosystem.	1
229	Species and intra-specific competition affect growth in greenhouse more than mycorrhizal colonization on <i>Quercus rubra</i> and <i>Acer rubrum</i> seedlings.	
228	Multi-year incubation experiments boost confidence in model projections of long-term soil carbon dynamics.	
227	Technologies and perspectives for achieving carbon neutrality. 2021 , 2, 100180	37
226	Soils as Driver and Victim of Climate Change in Egypt. 2020 , 115-150	
225	Satellite Monitoring of Global Surface Soil Organic Carbon Dynamics Using the SMAP Level 4 Carbon Product. 2020 , 125, e2020JG006100	4
224	Global Climate Change and Agriculture. 2020 , 119-135	
223	References. 2020 , 531-734	
222	No solid evidence of soil carbon loss under warming in tropical forests along a 3000 m elevation gradient.	
221	Depth-dependent drivers of soil microbial necromass carbon across Tibetan alpine grasslands. 2021	2
220	Mechanisms of soil organic carbon stability and its response to no-till: A global synthesis and perspective. 2021 ,	5
219	A unified theory for organic matter accumulation.	1
218	Above and belowground carbon stock in a tropical forest in Brazil. 43, e48276	0
217	The effect of water deficit and livestock stocking density on soil organic carbon stocks in Namibia. 2022 , 407, 115522	1
216	Functional soil microbiome across ecosystems. 2021 , 252, 104428	4

215	Soil heterotrophic respiration in response to rising temperature and moisture along an altitudinal gradient in a subtropical forest ecosystem, Southwest China. 2021 , 816, 151643	
214	Impacts of Landscape Evolution on Heterotrophic Carbon Loss in Intensively Managed Landscapes. 2021 , 3,	1
213	Long-term vegetation restoration increases carbon sequestration of different soil particles in a semi-arid desert. 2021 , 12, e03848	
212	Warming has a minor effect on surface soil organic carbon in alpine meadow ecosystems on the Qinghai-Tibetan Plateau. 2021 ,	2
211	Kinetic Properties of Microbial Exoenzymes Vary With Soil Depth but Have Similar Temperature Sensitivities Through the Soil Profile.. 2021 , 12, 735282	0
210	Temperature effects on carbon storage are controlled by soil stabilisation capacities. 2021 , 12, 6713	4
209	Effect of mulch, no-tillage and no-fertiliser as sustainable practices on soil organic carbon and carbon dioxide emission. 1-9	
208	Embracing the dynamic nature of soil structure: A paradigm illuminating the role of life in critical zones of the Anthropocene. 2021 , 225, 103873	5
207	Global Climate Change and Microbial Ecology: Current Scenario and Management. 2021 , 285-313	
206	Exclusion of Plant Input Affects the Temperature Sensitivity of Soil Carbon Decomposition.	
205	Vertically Divergent Responses of SOC Decomposition to Soil Moisture in a Changing Climate. 2022 , 127,	0
204	Comparison of bacterial and fungal diversity and network connectivity in karst and non-karst forests in southwest China.. 2022 , 822, 153179	4
203	Association of Organic Carbon With Reactive Iron Oxides Driven by Soil pH at the Global Scale. 2022 , 36,	0
202	Multiple soil map comparison highlights challenges for predicting topsoil organic carbon concentration at national scale.. 2022 , 12, 1379	0
201	Liming and Phosphate Application Influence Soil Carbon and Nitrogen Mineralization Differently in Response to Temperature Regimes in Allophanic Andosols. 2022 , 12, 142	
200	Soil carbon stocks and dynamics of different land uses in Italy using the LUCAS soil database.. 2022 , 306, 114452	0
199	Warming-induced greenhouse gas fluxes from global croplands modified by agricultural practices: A meta-analysis.. 2022 , 153288	1
198	Permafrost Degradation Diminishes Terrestrial Ecosystem Carbon Sequestration Capacity on the Qinghai-Tibetan Plateau.	0

197	Global maps of soil temperature.. 2021 ,	8
196	Potential Impacts of Climatic Stress on the Performance of Phyto-bioremediation Techniques. 2021 , 201-230	
195	Microbial Metabolic Limitation Response to Experimental Warming Along an Altitudinal Gradient in Alpine Grasslands, Eastern Tibetan Plateau.	
194	Sustainable Forest Management: Community Forestry's Contribution to Build Climate-Resilient Communities in Nepal. 2022 , 179-198	
193	Winters are changing: snow effects on Arctic and alpine tundra ecosystems.	1
192	Effects of 7 Years of Warming and Straw Application on Soil Bacterial, Fungal, and Archaeal Community Compositions and Diversities in a Crop Field. 1	1
191	Decline in the alpine landscape aesthetic value in a national park under climate change. 2022 , 170, 1	0
190	Field experiments underestimate aboveground biomass response to drought.. 2022 ,	0
189	SOIL CARBON DYNAMICS AND RESPONSES TO ENVIRONMENTAL CHANGES. 2022 , 207-231	
188	Phosphorus Shapes Soil Microbial Community Composition and Network Properties During Grassland Expansion Into Shrubs in Tibetan Dry Valleys.. 2022 , 13, 848691	1
187	Prospect of pink pigmented facultative methylotrophs in mitigating abiotic stress and climate change.. 2022 ,	0
186	Compositional stability of peat in ecosystem-scale warming mesocosms.. 2022 , 17, e0263994	1
185	Effect of precipitation change on the photosynthetic performance of under elevated temperature conditions.. 2022 , 10, e13087	
184	NEXT-GENERATION SOIL BIOGEOCHEMISTRY MODEL REPRESENTATIONS. 2022 , 233-257	1
183	Continental United States may lose 1.8 petagrams of soil organic carbon under climate change by 2100.	1
182	The Pandora's box of soil carbon.. 2022 , 119, e2201077119	0
181	Cryosphere Microbiome Biobanks for Mountain Glaciers in China. 2022 , 14, 2903	0
180	Low carbon availability in paleosols nonlinearly attenuates temperature sensitivity of SOM decomposition.. 2022 ,	0

179	Multi-year trend and interannual variability in soil respiration measurements collected in an urban forest ecosystem in Beijing, China. 2022 , 316, 108877	0
178	Using a tropical elevation gradient to evaluate the impact of land-use intensity and forest restoration on the microbial use of organic matter under climate change.	0
177	Improving soil carbon estimates by linking conceptual pools against measurable carbon fractions in the DAYCENT Model Version 4.5.	0
176	Soil carbon and microbes in the warming tropics.	0
175	Climate change induces carbon loss of arable mineral soils in boreal conditions.. 2022 ,	3
174	Response of grassland soil respiration to experimental warming: The long-term effects may be greater than we thought. 2022 , 168, 108616	0
173	Changes in carbon inputs affect soil respiration and its temperature sensitivity in a broadleaved forest in central China. 2022 , 213, 106197	1
172	Effects of warming and precipitation changes on soil GHG fluxes: A meta-analysis.. 2022 , 827, 154351	1
171	Microbial metabolic limitation response to experimental warming along an altitudinal gradient in alpine grasslands, eastern Tibetan Plateau. 2022 , 214, 106243	0
170	Response of soil greenhouse gas fluxes to warming: A global meta-analysis of field studies. 2022 , 419, 115865	0
169	High stability and metabolic capacity of bacterial community promote the rapid reduction of easily decomposing carbon in soil. 2021 , 4, 1376	1
168	Prediction of Soc in Calcic Chernozem in the Steppe Zone of Ukraine Using Brightness and Colour Indicators. 2021 , 40, 325-336	
167	A global overview of studies about land management, land-use change, and climate change effects on soil organic carbon. 2021 ,	11
166	Assessing Soil Organic Carbon Stock Dynamics under Future Climate Change Scenarios in the Middle Qilian Mountains. 2021 , 12, 1698	2
165	Microbes and Climate Change: a Research Prospectus for the Future.. 2022 , e0080022	6
164	Data_Sheet_1.docx. 2019 ,	
163	Data_Sheet_1.pdf. 2018 ,	
162	Data_Sheet_1.docx. 2020 ,	

- 161 Data_Sheet_2.pdf. **2020**,
- 160 Data_Sheet_3.xlsx. **2020**,
- 159 Data_Sheet_1.pdf. **2019**,
- 158 Data_Sheet_1.PDF. **2019**,
- 157 Table_1.xlsx. **2019**,
- 156 Temperature and Rainfall Patterns Constrain the Multidimensional Rewilding of Global Forests.. **2022**, e2201144 ○
- 155 Carbon Sequestration Alternatives for Mitigating the Accumulation of Greenhouse Gases in the Atmosphere. **2022**, 443-465
- 154 Functional profiles of soil microbial communities in the alpine and temperate grasslands of China.
- 153 Near-surface soil thermal regime and land-air temperature coupling: a case study over Spain.
- 152 Temperature responsiveness of soil carbon fractions, microbes, extracellular enzymes and CO₂ emission: mitigating role of texture.. **2022**, 10, e13151 ○
- 151 Quantitative stable-isotope probing (qSIP) with metagenomics links microbial physiology and activity to soil moisture in Mediterranean-climate grassland ecosystems. ○
- 150 Lowland plant arrival in alpine ecosystems facilitates a decrease in soil carbon content under experimental climate warming.. **2022**, 11, ○
- 149 Effects of land use change on soil carbon and nitrogen in purple paddy soil.. **2022**, 314, 115122 ○
- 148 Soil warming and nitrogen addition facilitates lignin and microbial residues accrual in temperate agroecosystems. **2022**, 170, 108693 1
- 147 Heterotrophic respiration and its proportion to total soil respiration decrease with warming but increase with clipping. **2022**, 215, 106321 ○
- 146 Variations in fungal community structure along elevation gradients in contrasting Austrian Alpine ecosystems. **2022**, 177, 104508 ○
- 145 Response of soil organic carbon content to crop rotation and its controls: A global synthesis. **2022**, 335, 108017 1
- 144 Soil warming did not enhance leaf litter decomposition in two subtropical forests. **2022**, 170, 108716 ○

143	Heat and Climate Change Mitigation. 2022 , 397-415	
142	Global soil organic carbon-climate interactions: Why scales matter.	0
141	Improving the remote estimation of soil organic carbon in complex ecosystems with Sentinel-2 and GIS using Gaussian processes regression.	0
140	Soil CO ₂ Efflux Dynamics and Its Relationship with the Environmental Variables in a Sub-Tropical Mixed Forest. 2022 , 12, 312-336	
139	Linking Soil Microbial Community to the Molecular Composition of Dissolved Organic Matter in a Boreal Forest During Freeze-Thaw Cycles.	
138	Impact of Climate Change on Dryland Agricultural Systems: A Review of Current Status, Potentials, and Further Work Need.	7
137	Effects of global change and human disturbance on soil carbon cycling in boreal forest: A review. 2022 ,	0
136	Effects of Elevation Gradient on Soil Carbon and Nitrogen in a Typical Karst Region of Chongqing, Southwest China. 2022 , 127,	0
135	Towards a better understanding of the role of Fe cycling in soil for carbon stabilization and degradation. 2022 , 1,	2
134	Organic carbon sequestration in Chinese croplands under compost application and its contribution to carbon neutrality.	1
133	Younger carbon dominates global soil carbon efflux.	0
132	Epistemic injustice in Climate Adaptation.	1
131	Massive warming-induced carbon loss from subalpine grassland soils in an altitudinal translocation experiment. 2022 , 19, 2921-2937	0
130	Seasonal and spatial variations in riverine DOC exports in permafrost-dominated Arctic river basins. 2022 , 612, 128060	1
129	Soil Respiration of Paddy Soils Were Stimulated by Semiconductor Minerals. 13,	0
128	Soil CO ₂ Emission Largely Dominates the Total Ecosystem CO ₂ Emission at Canadian Boreal Forest. 10,	
127	The climate change mitigation potential of annual grasslands under future climates.	
126	Spatiotemporal dynamics of forest ecosystem carbon budget in Guizhou: customisation and application of the CBM-CFS3 model for China. 2022 , 17,	0

- 125 Climate warming weakens the negative effect of nitrogen addition on the microbial contribution to soil carbon pool in an alpine meadow. **2022**, 217, 106513 ○
- 124 Residential and agricultural soils dominate soil organic matter loss in a typical agricultural watershed of subtropical China. **2022**, 338, 108100 ○
- 123 Drivers and trends of global soil microbial carbon over two decades. **2022**, 13, 1 ○
- 122 Soil carbon loss in warmed subarctic grasslands is rapid and restricted to topsoil. **2022**, 19, 3381-3393 ○
- 121 Nitrogen availability determines ecosystem productivity in response to climate warming. 1
- 120 Reviews and syntheses: The promise of big diverse soil data, moving current practices towards future potential. **2022**, 19, 3505-3522 ○
- 119 Soil carbon quantity and form are controlled predominantly by mean annual temperature along 4000 km North-South transect of Eastern China. **2022**, 217, 106498 ○
- 118 Soil science in the time of climate mitigation. ○
- 117 Soil carbon sequestration potential in global croplands. 10, e13740 ○
- 116 Northeast China holds huge wetland soil organic carbon storage: an estimation from 819 soil profiles and random forest algorithm. ○
- 115 Kelp carbon sink potential decreases with warming due to accelerating decomposition. **2022**, 20, e3001702 ○
- 114 Ten years of warming increased plant-derived carbon accumulation in an East Asian monsoon forest. ○
- 113 Reduced basal and increased topdressing fertilizer rate combined with straw incorporation improves rice yield stability and soil organic carbon sequestration in a rice/wheat system. 13, ○
- 112 Importance of Diurnal Temperature Range (DTR) for predicting the temperature sensitivity of soil respiration. 2, ○
- 111 Exclusion of plant input affects the temperature sensitivity of soil organic carbon decomposition. **2022**, 142, 109274 ○
- 110 Long-term fencing alters the vertical distribution of soil $\delta^{13}C$ and SOC turnover rate: Revealed by MBC- $\delta^{13}C$. **2022**, 339, 108119 ○
- 109 Changes in soil micronutrients along a temperature gradient in northern China. **2022**, 851, 158145 ○
- 108 The Lack of Snow in a Boreal Forest May Reduce Summer Feeding Activity of Soil Invertebrates. **2022**, 53, 413-418 ○

107	Monitoring changes in global soil organic carbon stocks from space. 2022 , 281, 113260	0
106	Divergent responses of cropland soil organic carbon to warming across the Sichuan Basin of China. 2022 , 851, 158323	0
105	Elevational pattern of soil organic carbon release in a Tibetan alpine grassland: Consequence of quality but not quantity of initial soil organic carbon. 2022 , 428, 116148	1
104	Intrinsic growth rate and cellobiohydrolase activity underlie the phylogenetic signal to fungal decomposer succession. 2023 , 61, 101180	0
103	Plant Diversity and Aboveground Biomass Interact with Abiotic Factors to Drive Soil Organic Carbon in Beijing Mountainous Areas. 2022 , 14, 10655	0
102	Soil Organic Carbon Storage in Australian Wheat Cropping Systems in Response to Climate Change from 1990 to 2060. 2022 , 11, 1683	0
101	Clarifying the evidence for microbial- and plant-derived soil organic matter, and the path toward a more quantitative understanding.	2
100	Low soil moisture suppresses the thermal compensatory response of microbial respiration.	0
99	Past, present, and future geo-biosphere interactions on the Tibetan Plateau and implications for permafrost. 2022 , 104197	1
98	Biocrusts Modulate Climate Change Effects on Soil Organic Carbon Pools: Insights From a 9-Year Experiment.	0
97	Reshaping How We Think about Soil Security. 2022 , 6, 74	0
96	Substrate availability and not thermal-acclimation controls microbial temperature sensitivity response to long term warming.	0
95	Microbial respiratory thermal adaptation is regulated by r-/K-strategy dominance.	0
94	Global soil profiles indicate depth-dependent soil carbon losses under a warmer climate. 2022 , 13,	0
93	Evaluation of soil carbon simulation in CMIP6 Earth system models. 2022 , 19, 4671-4704	0
92	Ecosystem productivity has a stronger influence than soil age on surface soil carbon storage across global biomes. 2022 , 3,	0
91	Research Progress on Microbial Carbon Sequestration in Soil: a Review. 2022 , 55, 1395-1404	0
90	Carbon accumulation dynamics of the Klukva peatland at the southern boundary of broad-leaved forest zone in European Russia. 2022 , 1093, 012006	0

- 89 Higher Temperature Sensitivity of Ecosystem Respiration in Low Marsh Compared to High Elevation Marsh Ecosystems. ○
- 88 The metamicrobiome: key determinant of the homeostasis of nutrient recycling. **2022**, ○
- 87 Effects of a warmer climate and forest composition on soil carbon cycling, soil organic matter stability and stocks in a humid boreal region. **2022**, 8, 673-686 ○
- 86 Initial soil organic carbon stocks govern changes in soil carbon: Reality or artifact?. ○
- 85 Integrating natural gradients, experiments, and statistical modeling in a distributed network experiment: An example from the WaRM Network. **2022**, 12, ○
- 84 Tracking vegetation phenology of pristine northern boreal peatlands by combining digital photography with CO₂ flux and remote sensing data. **2022**, 19, 4747-4765 ○
- 83 Effects of elevated CO₂ and warming on the root-associated microbiota in an agricultural ecosystem. ○
- 82 Biotic factors dominantly determine soil inorganic carbon stock across Tibetan alpine grasslands. **2022**, 8, 687-698 ○
- 81 Szőlődi szőrméleg egy köz-magyarországi mintaterületen. **2022**, ○
- 80 Short-term but not long-term perennial mugwort cropping increases soil organic carbon in Northern China Plain. 13, ○
- 79 Changing plant species composition and richness benefit soil carbon sequestration under climate warming. ○
- 78 Soil carbon stock changes over 21 years in intensively monitored boreal forest stands in Finland. **2022**, 144, 109551 ○
- 77 Elevation dependent response of soil organic carbon stocks to forest windthrow. **2023**, 857, 159694 ○
- 76 Mapping the distribution, trends, and drivers of soil organic carbon in China from 1982 to 2019. **2023**, 429, 116232 ○
- 75 Climate change impacts on European arable crop yields: Sensitivity to assumptions about rotations and residue management. **2023**, 142, 126670 1
- 74 Co-regulation of temperature and moisture in the irrigated agricultural ecosystem productivity. **2023**, 275, 108016 ○
- 73 Long-term changes in soil chemical properties with cropland-to-orchard conversion on the Loess Plateau, China: Regulatory factors and relations with apple yield. **2023**, 204, 103562 ○
- 72 Coupling of soil carbon and nitrogen dynamics in drylands under climate change. **2023**, 221, 106735 ○

71	Assessment of Land Degradation Factors.	0
70	Climate-driven decoupling of wetland and upland biomass trends on the mid-Atlantic coast. 2022 , 15, 913-918	2
69	Modelling bark thickness for Scots pine (<i>Pinus sylvestris</i> L.) and common oak (<i>Quercus robur</i> L.) with recurrent neural networks. 2022 , 17, e0276798	0
68	Apparent thermal acclimation of soil heterotrophic respiration mainly mediated by substrate availability.	0
67	Understanding soil selenium accumulation and bioavailability through size resolved and elemental characterization of soil extracts. 2022 , 13,	1
66	Modeling demographic-driven vegetation dynamics and ecosystem biogeochemical cycling in NASA GISS's Earth system model (ModelE-BiomeE v.1.0). 2022 , 15, 8153-8180	0
65	Agriculture and food security under a changing climate: An underestimated challenge. 2022 , 105551	1
64	Soil organic matter changes under experimental pedoclimatic modifications in mountain grasslands of the French Alps. 2023 , 429, 116238	0
63	A marginal abatement cost curve for climate change mitigation by additional carbon storage in French agricultural land. 2023 , 383, 135423	1
62	An improved estimate of soil carbon pool and carbon fluxes in the Qinghai-Tibetan grasslands using data assimilation with an ecosystem biogeochemical model. 2023 , 430, 116283	0
61	Long-term warming reduces surface soil organic carbon by reducing mineral-associated carbon rather than free particulate carbon. 2023 , 177, 108905	0
60	Retrieving Soil Moisture in the Permafrost Environment by Sentinel-1/2 Temporal Data on the Qinghai-Tibet Plateau. 2022 , 14, 5966	0
59	Statistical traps lurk in the research of soil carbon dynamics.	0
58	Evaluation of Soil Organic Carbon Storage of Attilo in the Ecuadorian Andean Wetlands. 2022 , 6, 92	0
57	Effects of soil physics, chemistry, and microbiology on soil carbon sequestration in infertile red soils after long-term cultivation of perennial grasses.	0
56	Photovoltaic panels have altered grassland plant biodiversity and soil microbial diversity. 13,	1
55	Global variations and drivers of nitrous oxide emissions from forests and grasslands. 2,	0
54	Linking soil microbial community with the changes in soil physicochemical properties in response to long-term agricultural land use change of different chronosequences and depth layers. 2022 , 145, 109727	0

- 53 Sustainable scale-up of negative emissions technologies and practices: where to focus. ○
- 52 Improvement of Spatial Estimation for Soil Organic Carbon Stocks in Yuksekova Plain using Sentinel 2 imagery and Gradient Descent Boosted Regression Tree. ○
- 51 One thousand soils for molecular understanding of belowground carbon cycling. ○
- 50 Global and northern-high-latitude net ecosystem production in the 21st century from CMIP6 experiments. **2023**, 14, 1-16 ○
- 49 Effects of temperature on soil geochemical properties and accumulation of heavy metals in rapeseed (*Brassica napus*). ○
- 48 Distribution of soil organic carbon and carbon sequestration potential of different geomorphic units in Shiyang river basin, China. ○
- 47 Reduction in soil CO₂ efflux through alteration of hydrothermal factor in milk vetch (*Astragalus sinicus* L.)-rapeseed (*Brassica napus* L.) intercropping system. 13, ○
- 46 Public Health Implications of Drought in a Climate Change Context: A Critical Review. **2023**, 44, ○
- 45 Evaluation of projected soil organic carbon stocks under future climate and land cover changes in South Africa using a deep learning approach. **2023**, 330, 117127 ○
- 44 Ecological drivers of soil carbon in Kashmir Himalayan forests: Application of machine learning combined with structural equation modelling. **2023**, 330, 117147 ○
- 43 Crop yield and carbon sink potential with precipitation in maize and potato cropland ecosystems over the summertime monsoon transition zone of China. ○
- 42 Mountain soils and climate change: importance, threats and mitigation measures. **2023**, 3-21 ○
- 41 Soil biological processes of mountainous landscapes: a holistic view. **2023**, 91-113 ○
- 40 Comparative Study on Carbon Emission of the Cyanobacteria Mud Disposal Process. **2023**, 15, 528 ○
- 39 Temperature effect on erosion-induced disturbances to soil organic carbon cycling. **2023**, 13, 174-181 ○
- 38 Rhizosphere Mycobiome: Roles, Diversity, and Dynamics. **2023**, 47-61 ○
- 37 Improvement of spatial estimation for soil organic carbon stocks in Yuksekova plain using Sentinel 2 imagery and gradient descent boosted regression tree. ○
- 36 One thousand soils for molecular understanding of belowground carbon cycling. 3, ○

- 35 Stable oxic-anoxic transitional interface is beneficial to retard soil carbon loss in drained peatland. **2023**, 181, 109024 ○
- 34 Current and future potential soil organic carbon stocks of vegetated coastal ecosystems and their controls in the Bohai Rim Region, China. **2023**, 225, 107023 ○
- 33 An increasing trend of inorganic nitrogen deposition across montane regions of China. **2023**, 304, 119780 ○
- 32 Climate plays a dominant role over land management in governing soil carbon dynamics in North Western Himalayas. **2023**, 338, 117740 ○
- 31 First soil organic carbon report of Paraguay. **2023**, 32, e00611 ○
- 30 Linking soil microbial community to the chemical composition of dissolved organic matter in a boreal forest during freeze-thaw cycles. **2023**, 431, 116359 ○
- 29 The temperature dependence of microbial community respiration is amplified by changes in species interactions. **2023**, 8, 272-283 ○
- 28 Nitrogen availability mediates soil carbon cycling response to climate warming: A meta-analysis. **2023**, 29, 2608-2626 ○
- 27 Large-scale ecosystem carbon stocks and their driving factors across Loess Plateau. **2023**, 2, ○
- 26 Warmer winters result in reshaping of the European beech forest soil microbiome (bacteria, archaea and fungi) with potential implications for ecosystem functioning. ○
- 25 Interactions between winter temperatures and duration of exposure may structure Arctic microarthropod communities. **2023**, 114, 103499 ○
- 24 Temperature sensitivity of soil organic carbon respiration along a forested elevation gradient in the Rwenzori Mountains, Uganda. **2023**, 20, 719-735 ○
- 23 Maximum summer temperatures predict the temperature adaptation of Arctic soil bacterial communities. **2023**, 20, 767-780 ○
- 22 Effects of Land-Use Dynamics on Soil Organic Carbon and Total Nitrogen Stock, Western Ethiopia. **2023**, 2023, 1-12 ○
- 21 The carbon dioxide fluxes at the open-top chambers experiment on the ombrotrophic bog (Mukhrino field station). **2023**, 13, 194-201 ○
- 20 Chronic Warming and Nitrogen-Addition Alter Soil Organic Matter Molecular Composition Distinctly in Tandem Compared to Individual Stressors. **2023**, 7, 609-622 ○
- 19 Soil microbial respiration adapts to higher and longer warming experiments at the global scale. **2023**, 18, 034044 ○
- 18 Initial responses of soil chemical properties to simulated warming in Norway spruce (*Picea abies* (L.) H.Karst.) stands in the Western Carpathians. **2023**, 432, 116400 ○

- 17 Climate warming alters the relative importance of plant root and microbial community in regulating the accumulation of soil microbial necromass carbon in a Tibetan alpine meadow. ○
- 16 Croplands in the Pampas of Argentina will become an atmospheric carbon sink in coming decades. **2023**, 32, e00626 ○
- 15 ??????????????????????????. **2023**, ○
- 14 Achieving Land Degradation Neutrality to Combat the Impacts of Climate Change. **2023**, 77-96 ○
- 13 The impact of agricultural management on soil aggregation and carbon storage is regulated by climatic thresholds across a 3000 km European gradient. ○
- 12 Soil fertility thresholds driven by sand content indicate drylands degradation phases on the Tibetan Plateau. ○
- 11 Plant diversity stabilizes soil temperature. ○
- 10 Warming Stimulated Soil Respiration in a Subalpine Meadow in North China. **2023**, 28, 77-87 ○
- 9 Deforestation for agriculture leads to soil warming and enhanced litter decomposition in subarctic soils. **2023**, 20, 1063-1074 ○
- 8 Physical Separation: Reuse Pollutants and Thermal Energy from Water. **2023**, 15, 1196 ○
- 7 Soil texture and microorganisms dominantly determine the subsoil carbonate content in the permafrost-affected area of the Tibetan Plateau. 14, ○
- 6 Most root-derived carbon inputs do not contribute to long-term global soil carbon storage. ○
- 5 Quantifying the Effects of Climate Change and Revegetation on Erosion-Induced Lateral Soil Organic Carbon Loss on the Chinese Loess Plateau. **2023**, 15, 1775 ○
- 4 Biochar improves soil organic carbon stability by shaping the microbial community structures at different soil depths four years after an incorporation in a farmland soil. **2023**, 5, 100214 ○
- 3 Experimental warming causes mismatches in alpine plant-microbe-fauna phenology. **2023**, 14, ○
- 2 Elevated temperature alters microbial communities, but not decomposition rates, during three years of in-situ peat decomposition. ○
- 1 Carbon management and sequestration for sustainable agriculture and environment. **2023**, 145-159 ○