Pete Smith

List of Publications by Year
in descending order

587 papers	67,454 citations	435 131 h-index	1027 235 g-index
642 all docs	642 docs citations	642 times ranked	46878 citing authors

#	Article	IF	Citations
1	Greenhouse gas mitigation in agriculture. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 789-813.	4.0	1,739
2	Natural climate solutions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11645-11650.	7.1	1,709
3	Climate extremes and the carbon cycle. Nature, 2013, 500, 287-295.	27.8	1,357
4	Ecosystem Service Supply and Vulnerability to Global Change in Europe. Science, 2005, 310, 1333-1337.	12.6	1,355
5	Climate-smart soils. Nature, 2016, 532, 49-57.	27.8	1,320
6	Sustainable Intensification in Agriculture: Premises and Policies. Science, 2013, 341, 33-34.	12.6	1,233
7	The technological and economic prospects for CO2 utilization and removal. Nature, 2019, 575, 87-97.	27.8	1,142
8	The significance of soils and soil science towards realization of the United Nations Sustainable Development Goals. Soil, 2016, 2, 111-128.	4.9	1,077
9	A comparison of the performance of nine soil organic matter models using datasets from seven long-term experiments. Geoderma, 1997, 81, 153-225.	5.1	974
10	Biophysical and economic limits to negative CO2 emissions. Nature Climate Change, 2016, 6, 42-50.	18.8	973
11	Betting on negative emissions. Nature Climate Change, 2014, 4, 850-853.	18.8	846
12	Microorganisms and climate change: terrestrial feedbacks and mitigation options. Nature Reviews Microbiology, 2010, 8, 779-790.	28.6	826
13	Negative emissionsâ€"Part 2: Costs, potentials and side effects. Environmental Research Letters, 2018, 13, 063002.	5.2	823
14	Carbon sequestration in the agricultural soils of Europe. Geoderma, 2004, 122, 1-23.	5.1	732
15	Global agriculture and nitrous oxide emissions. Nature Climate Change, 2012, 2, 410-416.	18.8	729
16	Agricultural soils as a sink to mitigate CO2emissions. Soil Use and Management, 1997, 13, 230-244.	4.9	719
17	Effects of climate extremes on the terrestrial carbon cycle: concepts, processes and potential future impacts. Global Change Biology, 2015, 21, 2861-2880.	9.5	683
18	Similar response of labile and resistant soil organic matter pools to changes in temperature. Nature, 2005, 433, 57-59.	27.8	629

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19	Global nitrogen deposition and carbon sinks. Nature Geoscience, 2008, 1, 430-437.	12.9	629
20	The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health: A Systematic Review. PLoS ONE, 2016, 11, e0165797.	2.5	617
21	Global change pressures on soils from land use and management. Global Change Biology, 2016, 22, 1008-1028.	9.5	605
22	Greenhouse gas mitigation potentials in the livestock sector. Nature Climate Change, 2016, 6, 452-461.	18.8	588
23	Soil carbon sequestration and biochar as negative emission technologies. Global Change Biology, 2016, 22, 1315-1324.	9.5	577
24	The role of soil carbon in natural climate solutions. Nature Sustainability, 2020, 3, 391-398.	23.7	571
25	Importance of food-demand management for climate mitigation. Nature Climate Change, 2014, 4, 924-929.	18.8	562
26	Enhanced top soil carbon stocks under organic farming. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18226-18231.	7.1	559
27	Europe's Terrestrial Biosphere Absorbs 7 to 12% of European Anthropogenic CO2 Emissions. Science, 2003, 300, 1538-1542.	12.6	551
28	Negative emissionsâ€"Part 1: Research landscape and synthesis. Environmental Research Letters, 2018, 13, 063001.	5.2	498
29	Bioenergy and climate change mitigation: an assessment. GCB Bioenergy, 2015, 7, 916-944.	5.6	494
30	Policy and technological constraints to implementation of greenhouse gas mitigation options in agriculture. Agriculture, Ecosystems and Environment, 2007, 118, 6-28.	5.3	459
31	How much landâ€based greenhouse gas mitigation can be achieved without compromising food security and environmental goals?. Global Change Biology, 2013, 19, 2285-2302.	9.5	454
32	Assessing â€œDangerous Climate Changeâ€: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature. PLoS ONE, 2013, 8, e81648.	2.5	448
33	Carbon sequestration in croplands: the potential in Europe and the global context. European Journal of Agronomy, 2004, 20, 229-236.	4.1	443
34	The FAOSTAT database of greenhouse gas emissions from agriculture. Environmental Research Letters, 2013, 8, 015009.	5.2	437
35	Strategies for feeding the world more sustainably with organic agriculture. Nature Communications, 2017, 8, 1290.	12.8	437
36	Global assessment of agricultural system redesign for sustainable intensification. Nature Sustainability, 2018, 1, 441-446.	23.7	416

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37	A coherent set of future land use change scenarios for Europe. Agriculture, Ecosystems and Environment, 2006, 114, 57-68.	5.3	412
38	The top 100 questions of importance to the future of global agriculture. International Journal of Agricultural Sustainability, 2010, 8, 219-236.	3.5	405
39	Achieving mitigation and adaptation to climate change through sustainable agroforestry practices in Africa. Current Opinion in Environmental Sustainability, 2014, 6, 8-14.	6.3	402
40	Land use change and soil organic carbon dynamics. Nutrient Cycling in Agroecosystems, 2008, 81, 169-178.	2.2	367
41	Competition for land. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 2941-2957.	4.0	365
42	Getting the message right on natureâ€based solutions to climate change. Global Change Biology, 2021, 27, 1518-1546.	9.5	363
43	The Contribution of Agriculture, Forestry and other Land Use activities to Global Warming, 1990â€"2012. Global Change Biology, 2015, 21, 2655-2660.	9.5	357
44	Energy crops: current status and future prospects. Global Change Biology, 2006, 12, 2054-2076.	9.5	351
45	Measured soil organic matter fractions can be related to pools in the RothC model. European Journal of Soil Science, 2007, 58, 658-667.	3.9	343
46	A critical review of the impacts of cover crops on nitrogen leaching, net greenhouse gas balance and crop productivity. Global Change Biology, 2019, 25, 2530-2543.	9.5	343
47	The role of soil organic matter in maintaining the productivity and yield stability of cereals in China. Agriculture, Ecosystems and Environment, 2009, 129, 344-348.	5.3	339
48	Potential for carbon sequestration in European soils: preliminary estimates for five scenarios using results from long-term experiments. Global Change Biology, 1997, 3, 67-79.	9.5	320
49	Importance of methane and nitrous oxide for Europe's terrestrial greenhouse-gas balance. Nature Geoscience, 2009, 2, 842-850.	12.9	310
50	How to measure, report and verify soil carbon change to realize the potential of soil carbon sequestration for atmospheric greenhouse gas removal. Global Change Biology, 2020, 26, 219-241.	9.5	308
51	Contribution of the land sector to a 1.5 Â°C world. Nature Climate Change, 2019, 9, 817-828.	18.8	301
52	Projected changes in mineral soil carbon of European croplands and grasslands, 1990-2080. Global Change Biology, 2005, 11, 2141-2152.	9.5	298
53	Global greenhouse gas emissions from animal-based foods are twice those of plant-based foods. Nature Food, 2021, 2, 724-732.	14.0	298
54	Meeting Europe's climate change commitments: quantitative estimates of the potential for carbon mitigation by agriculture. Global Change Biology, 2000, 6, 525-539.	9.5	294

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55	Critical review of the impacts of grazing intensity on soil organic carbon storage and other soil quality indicators in extensively managed grasslands. Agriculture, Ecosystems and Environment, 2018, 253, 62-81.	5.3	289
56	Innovation can accelerate the transition towards a sustainable food system. Nature Food, 2020, 1, 266-272.	14.0	285
57	Ruminants, climate change and climate policy. Nature Climate Change, 2014, 4, 2-5.	18.8	276
58	Reducing emissions from agriculture to meet the 2ÂÂ°C target. Global Change Biology, 2016, 22, 3859-3864.	9.5	267
59	Delivering food security without increasing pressure on land. Global Food Security, 2013, 2, 18-23.	8.1	264
60	Selenium deficiency risk predicted to increase under future climate change. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2848-2853.	7.1	260
61	Carbon losses from soil and its consequences for land-use management. Science of the Total Environment, 2007, 382, 165-190.	8.0	257
62	Yield and spatial supply of bioenergy poplar and willow shortâ€rotation coppice in the UK. New Phytologist, 2008, 178, 358-370.	7.3	252
63	How long before a change in soil organic carbon can be detected?. Global Change Biology, 2004, 10, 1878-1883.	9.5	249
64	Biogeochemical cycles and biodiversity as key drivers of ecosystem services provided by soils. Soil, 2015, 1, 665-685.	4.9	249
65	Comparing and evaluating process-based ecosystem model predictions of carbon and water fluxes in major European forest biomes. Global Change Biology, 2005, 11, 2211-2233.	9.5	246
66	Spatial distribution of soil organic carbon stocks in France. Biogeosciences, 2011, 8, 1053-1065.	3.3	246
67	Estimating the size of the inert organic matter pool from total soil organic carbon content for use in the Rothamsted carbon model. Soil Biology and Biochemistry, 1998, 30, 1207-1211.	8.8	241
68	Food vs. fuel: the use of land for lignocellulosic â€˜next generationâ€™ energy crops that minimize competition with primary food production. GCB Bioenergy, 2012, 4, 1-19.	5.6	240
69	Synergies between the mitigation of, and adaptation to, climate change in agriculture. Journal of Agricultural Science, 2010, 148, 543-552.	1.3	235
70	Integrating plantâ€“soil interactions into global carbon cycle models. Journal of Ecology, 2009, 97, 851-863.	4.0	233
71	Impact of Global Warming on Soil Organic Carbon. Advances in Agronomy, 2008, 97, 1-43.	5.2	231
72	Mitigating climate change: the role of domestic livestock. Animal, 2010, 4, 323-333.	3.3	228

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73	Greedy or needy? Land use and climate impacts of food in 2050 under different livestock futures. Global Environmental Change, 2017, 47, 1-12.	7.8	225
74	The carbon footprints of food crop production. International Journal of Agricultural Sustainability, 2009, 7, 107-118.	3.5	224
75	Negative emissionsâ€"Part 3: Innovation and upscaling. Environmental Research Letters, 2018, 13, 063003.	5.2	224
76	Measurements necessary for assessing the net ecosystem carbon budget of croplands. Agriculture, Ecosystems and Environment, 2010, 139, 302-315.	5.3	221
77	Preliminary estimates of the potential for carbon mitigation in European soils through noâ€till farming. Global Change Biology, 1998, 4, 679-685.	9.5	213
78	Aligning agriculture and climate policy. Nature Climate Change, 2017, 7, 307-309.	18.8	213
79	Impacts of feeding less food-competing feedstuffs to livestock on global food system sustainability. Journal of the Royal Society Interface, 2015, 12, 20150891.	3.4	211
80	Climate change and sustainable food production. Proceedings of the Nutrition Society, 2013, 72, 21-28.	1.0	210
81	Matching policy and science: Rationale for the â€˜4 per 1000 - soils for food security and climateâ€™ initiative. Soil and Tillage Research, 2019, 188, 3-15.	5.6	208
82	The 4p1000 initiative: Opportunities, limitations and challenges for implementing soil organic carbon sequestration as a sustainable development strategy. Ambio, 2020, 49, 350-360.	5.5	208
83	Challenges in quantifying biosphereâ€"atmosphere exchange of nitrogen species. Environmental Pollution, 2007, 150, 125-139.	7.5	203
84	Significant soil acidification across northern China's grasslands during 1980sâ€"2000s. Global Change Biology, 2012, 18, 2292-2300.	9.5	200
85	Combined inorganic/organic fertilization enhances N efficiency and increases rice productivity through organic carbon accumulation in a rice paddy from the Tai Lake region, China. Agriculture, Ecosystems and Environment, 2009, 131, 274-280.	5.3	199
86	The potential distribution of bioenergy crops in Europe under present and future climate. Biomass and Bioenergy, 2006, 30, 183-197.	5.7	198
87	First 20 years of DNDC (DeNitrification DeComposition): Model evolution. Ecological Modelling, 2014, 292, 51-62.	2.5	195
88	Management effects on net ecosystem carbon and GHG budgets at European crop sites. Agriculture, Ecosystems and Environment, 2010, 139, 363-383.	5.3	194
89	Strategies for greenhouse gas emissions mitigation in Mediterranean agriculture: A review. Agriculture, Ecosystems and Environment, 2017, 238, 5-24.	5.3	193
90	The environmental costs and benefits of high-yield farming. Nature Sustainability, 2018, 1, 477-485.	23.7	193

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91	Carbon footprint of China's crop productionâ€"An estimation using agro-statistics data over 1993â€"2007. Agriculture, Ecosystems and Environment, 2011, 142, 231-237.	5.3	192
92	The permafrost carbon inventory on the Tibetan Plateau: a new evaluation using deep sediment cores. Global Change Biology, 2016, 22, 2688-2701.	9.5	189
93	Young people's burden: requirement of negative CO₂ emissions. Earth System Dynamics, 2017, 8, 577-616.	7.1	189
94	The biodiversity and ecosystem service contributions and trade-offs of forest restoration approaches. Science, 2022, 376, 839-844.	12.6	188
95	UK land use and soil carbon sequestration. Land Use Policy, 2009, 26, S274-S283.	5.6	187
96	Long-Term Soil Experiments: Keys to Managing Earth's Rapidly Changing Ecosystems. Soil Science Society of America Journal, 2007, 71, 266-279.	2.2	186
97	The European carbon balance. Part 2: croplands. Global Change Biology, 2010, 16, 1409-1428.	9.5	185
98	Livestock greenhouse gas emissions and mitigation potential in Europe. Global Change Biology, 2013, 19, 3-18.	9.5	183
99	Sustainability in global agriculture driven by organic farming. Nature Sustainability, 2019, 2, 253-255.	23.7	182
100	Do grasslands act as a perpetual sink for carbon?. Global Change Biology, 2014, 20, 2708-2711.	9.5	181
101	Land-Management Options for Greenhouse Gas Removal and Their Impacts on Ecosystem Services and the Sustainable Development Goals. Annual Review of Environment and Resources, 2019, 44, 255-286.	13.4	181
102	The carbon sequestration potential of terrestrial ecosystems. Journal of Soils and Water Conservation, 2018, 73, 145A-152A.	1.6	180
103	A farm-focused calculator for emissions from crop and livestock production. Environmental Modelling and Software, 2011, 26, 1070-1078.	4.5	179
104	The carbon budget of terrestrial ecosystems at country-scale â€" a European case study. Biogeosciences, 2005, 2, 15-26.	3.3	178
105	Direct nitrous oxide emissions in Mediterranean climate cropping systems: Emission factors based on a meta-analysis of available measurement data. Agriculture, Ecosystems and Environment, 2017, 238, 25-35.	5.3	178
106	The potential for land sparing to offset greenhouse gas emissions from agriculture. Nature Climate Change, 2016, 6, 488-492.	18.8	177
107	Soil physics meets soil biology: Towards better mechanistic prediction of greenhouse gas emissions from soil. Soil Biology and Biochemistry, 2012, 47, 78-92.	8.8	173
108	Soils and climate change. Current Opinion in Environmental Sustainability, 2012, 4, 539-544.	6.3	172

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109	Reducing greenhouse gas emissions in agriculture without compromising food security?. Environmental Research Letters, 2017, 12, 105004.	5.2	172
110	Soil carbon stock and its changes in northern China's grasslands from 1980s to 2000s. Global Change Biology, 2010, 16, 3036-3047.	9.5	169
111	REVIEW: The role of ecosystems and their management in regulating climate, and soil, water and air quality. Journal of Applied Ecology, 2013, 50, 812-829.	4.0	169
112	Greenhouse gas emissions from agricultural food production to supply Indian diets: Implications for climate change mitigation. Agriculture, Ecosystems and Environment, 2017, 237, 234-241.	5.3	168
113	Decadal soil carbon accumulation across Tibetan permafrost regions. Nature Geoscience, 2017, 10, 420-424.	12.9	166
114	Which practices coâ€deliver food security, climate change mitigation and adaptation, and combat land degradation and desertification?. Global Change Biology, 2020, 26, 1532-1575.	9.5	164
115	Soil salinity decreases global soil organic carbon stocks. Science of the Total Environment, 2013, 465, 267-272.	8.0	162
116	Impacts of land use, population, and climate change on global food security. Food and Energy Security, 2021, 10, e261.	4.3	162
117	Decoupling of greenhouse gas emissions from global agricultural production: 1970â€“2050. Global Change Biology, 2016, 22, 763-781.	9.5	161
118	Modelling refractory soil organic matter. Biology and Fertility of Soils, 2000, 30, 388-398.	4.3	158
119	Management opportunities to mitigate greenhouse gas emissions from Chinese agriculture. Agriculture, Ecosystems and Environment, 2015, 209, 108-124.	5.3	158
120	Review and analysis of strengths and weaknesses of agro-ecosystem models for simulating C and N fluxes. Science of the Total Environment, 2017, 598, 445-470.	8.0	157
121	National mitigation potential from natural climate solutions in the tropics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190126.	4.0	157
122	Title is missing!. Nutrient Cycling in Agroecosystems, 2001, 60, 237-252.	2.2	156
123	The development of MISCANFOR, a new <i>Miscanthus</i> crop growth model: towards more robust yield predictions under different climatic and soil conditions. GCB Bioenergy, 2009, 1, 154-170.	5.6	155
124	An increase in topsoil SOC stock of China's croplands between 1985 and 2006 revealed by soil monitoring. Agriculture, Ecosystems and Environment, 2010, 136, 133-138.	5.3	152
125	The net biome production of full crop rotations in Europe. Agriculture, Ecosystems and Environment, 2010, 139, 336-345.	5.3	152
126	Towards an integrated global framework to assess the impacts of land use and management change on soil carbon: current capability and future vision. Global Change Biology, 2012, 18, 2089-2101.	9.5	150

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127	Salinity effects on carbon mineralization in soils of varying texture. Soil Biology and Biochemistry, 2011, 43, 1908-1916.	8.8	147
128	Greenhouse gas emissions from four bioenergy crops in England and Wales: Integrating spatial estimates of yield and soil carbon balance in life cycle analyses. GCB Bioenergy, 2009, 1, 267-281.	5.6	146
129	Simulating SOC changes in longâ€term experiments with RothC and CENTURY: model evaluation for a regional scale application. Soil Use and Management, 2002, 18, 101-111.	4.9	142
130	Climate drives global soil carbon sequestration and crop yield changes under conservation agriculture. Global Change Biology, 2020, 26, 3325-3335.	9.5	142
131	Future energy potential of <i>Miscanthus</i> in Europe. GCB Bioenergy, 2009, 1, 180-196.	5.6	139
132	Carbon sequestration potential in European croplands has been overestimated. Global Change Biology, 2005, 11, 2153-2163.	9.5	138
133	Research priorities for negative emissions. Environmental Research Letters, 2016, 11, 115007.	5.2	138
134	Coâ€benefits, tradeâ€offs, barriers and policies for greenhouse gas mitigation in the agriculture, forestry and other land use (<scp>AFOLU</scp>) sector. Global Change Biology, 2014, 20, 3270-3290.	9.5	137
135	Changes in topsoil carbon stock in the Tibetan grasslands between the 1980s and 2004. Global Change Biology, 2009, 15, 2723-2729.	9.5	135
136	Articulating the effect of food systems innovation on the Sustainable Development Goals. Lancet Planetary Health, The, 2021, 5, e50-e62.	11.4	135
137	Direct measurement of soil organic carbon content change in the croplands of China. Global Change Biology, 2011, 17, 1487-1496.	9.5	133
138	Changes in soil organic carbon under perennial crops. Global Change Biology, 2020, 26, 4158-4168.	9.5	132
139	Soil carbon sequestration rates under Mediterranean woody crops using recommended management practices: A meta-analysis. Agriculture, Ecosystems and Environment, 2016, 235, 204-214.	5.3	130
140	Climate change cannot be entirely responsible for soil carbon loss observed in England and Wales, 1978â€“2003. Global Change Biology, 2007, 13, 2605-2609.	9.5	126
141	Global projections of future cropland expansion to 2050 and direct impacts on biodiversity and carbon storage. Global Change Biology, 2018, 24, 5895-5908.	9.5	126
142	Nitrogen Surplus Benchmarks for Controlling N Pollution in the Main Cropping Systems of China. Environmental Science & Technology, 2019, 53, 6678-6687.	10.0	125
143	Soils as carbon sinks: the global context. Soil Use and Management, 2004, 20, 212-218.	4.9	125
144	Conservation tillage systems: a review of its consequences for greenhouse gas emissions. Soil Use and Management, 2013, 29, 199-209.	4.9	124

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145	The natural abundance of13C,15N,34S and14C in archived (1923-2000) plant and soil samples from the Askov long-term experiments on animal manure and mineral fertilizer. Rapid Communications in Mass Spectrometry, 2005, 19, 3216-3226.	1.5	122
146	A synopsis of land use, land-use change and forestry (LULUCF) under the Kyoto Protocol and Marrakech Accords. Environmental Science and Policy, 2007, 10, 271-282.	4.9	121
147	Emissions of methane from northern peatlands: a review of management impacts and implications for future management options. Ecology and Evolution, 2016, 6, 7080-7102.	1.9	120
148	The vulnerabilities of agricultural land and food production to future water scarcity. Global Environmental Change, 2019, 58, 101944.	7.8	120
149	Put more carbon in soils to meet Paris climate pledges. Nature, 2018, 564, 32-34.	27.8	119
150	A Review of Criticisms of Integrated Assessment Models and Proposed Approaches to Address These, through the Lens of BECCS. Energies, 2019, 12, 1747.	3.1	119
151	Agriculture: sustainable crop and animal production to help mitigate nitrous oxide emissions. Current Opinion in Environmental Sustainability, 2014, 9-10, 46-54.	6.3	116
152	Developing greenhouse gas marginal abatement cost curves for agricultural emissions from crops and soils in the UK. Agricultural Systems, 2010, 103, 198-209.	6.1	115
153	Spring-time for sinks. Nature, 2007, 446, 727-728.	27.8	114
154	Landâ€based measures to mitigate climate change: Potential and feasibility by country. Global Change Biology, 2021, 27, 6025-6058.	9.5	114
155	Global change, soil biodiversity, and nitrogen cycling in terrestrial ecosystems: three case studies. Global Change Biology, 1998, 4, 729-743.	9.5	113
156	Carbon footprint of crop production in China: an analysis of National Statistics data. Journal of Agricultural Science, 2015, 153, 422-431.	1.3	112
157	Spatially explicit estimates of N₂O emissions from croplands suggest climate mitigation opportunities from improved fertilizer management. Global Change Biology, 2016, 22, 3383-3394.	9.5	112
158	Chinaâ€™s future food demand and its implications for trade and environment. Nature Sustainability, 2021, 4, 1042-1051.	23.7	112
159	The impact of population growth and climate change on food security in Africa: looking ahead to 2050. International Journal of Agricultural Sustainability, 2017, 15, 124-135.	3.5	110
160	Robust paths to net greenhouse gas mitigation and negative emissions via advanced biofuels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21968-21977.	7.1	110
161	Bioclimatic envelope model of climate change impacts on blanket peatland distribution in Great Britain. Climate Research, 2010, 45, 151-162.	1.1	109
162	Regional estimates of carbon sequestration potential: linking the Rothamsted Carbon Model to GIS databases. Biology and Fertility of Soils, 1998, 27, 236-241.	4.3	107

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163	Climate warming from managed grasslands cancels the cooling effect of carbon sinks in sparsely grazed and natural grasslands. Nature Communications, 2021, 12, 118.	12.8	106
164	The potential of <i>Miscanthus</i> to sequester carbon in soils: comparing field measurements in Carlow, Ireland to model predictions. GCB Bioenergy, 2009, 1, 413-425.	5.6	104
165	How will organic carbon stocks in mineral soils evolve under future climate? Global projections using RothC for a range of climate change scenarios. Biogeosciences, 2012, 9, 3151-3171.	3.3	104
166	Assessing uncertainties in crop and pasture ensemble model simulations of productivity and N₂O emissions. Global Change Biology, 2018, 24, e603-e616.	9.5	104
167	Natural climate solutions are not enough. Science, 2019, 363, 933-934.	12.6	104
168	Historical and future perspectives of global soil carbon response to climate and land-use changes. Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 700.	1.6	103
169	Quantitative methods to evaluate and compare Soil Organic Matter (SOM) Models. , 1996, , 181-199.		101
170	Testing DayCent and DNDC model simulations of N2O fluxes and assessing the impacts of climate change on the gas flux and biomass production from a humid pasture. Atmospheric Environment, 2010, 44, 2961-2970.	4.1	100
171	Simulation of soil organic carbon stocks in a Mediterranean olive grove under different soil-management systems using the RothC model. Soil Use and Management, 2010, 26, 118-125.	4.9	100
172	Estimating changes in Scottish soil carbon stocks using ECOSSE. I. Model description and uncertainties. Climate Research, 2010, 45, 179-192.	1.1	99
173	Simulating the Earth system response to negative emissions. Environmental Research Letters, 2016, 11, 095012.	5.2	98
174	When is a measured soil organic matter fraction equivalent to a model pool?. European Journal of Soil Science, 2002, 53, 405-416.	3.9	97
175	An overview of the permanence of soil organic carbon stocks: influence of direct human-induced, indirect and natural effects. European Journal of Soil Science, 2005, 56, 673-680.	3.9	97
176	Saturation of the Terrestrial Carbon Sink. , 2007, , 59-78.		97
177	Agricultural production and greenhouse gas emissions from world regionsâ€"The major trends over 40 years. Global Environmental Change, 2016, 37, 43-55.	7.8	96
178	Mitigating Greenhouse Gas and Ammonia Emissions from Swine Manure Management: A System Analysis. Environmental Science & Technology, 2017, 51, 4503-4511.	10.0	96
179	Management swing potential for bioenergy crops. GCB Bioenergy, 2013, 5, 623-638.	5.6	94
180	Revised estimates of the carbon mitigation potential of UK agricultural land. Soil Use and Management, 2000, 16, 293-295.	4.9	93

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181	Estimating the pre-harvest greenhouse gas costs of energy crop production. Biomass and Bioenergy, 2008, 32, 442-452.	5.7	93
182	A warm response by soils. Nature, 2010, 464, 499-500.	27.8	91
183	A global assessment of the effects of climate policy on the impacts of climate change. Nature Climate Change, 2013, 3, 512-519.	18.8	91
184	Cost-effective opportunities for climate change mitigation in Indian agriculture. Science of the Total Environment, 2019, 655, 1342-1354.	8.0	89
185	The impacts of climate change across the globe: A multi-sectoral assessment. Climatic Change, 2016, 134, 457-474.	3.6	88
186	Increase in soil organic carbon stock over the last two decades in China's Jiangsu Province. Global Change Biology, 2009, 15, 861-875.	9.5	86
187	Reâ€framing the climate change debate in the livestock sector: mitigation and adaptation options. Wiley Interdisciplinary Reviews: Climate Change, 2016, 7, 869-892.	8.1	83
188	Nitrous oxide fluxes and denitrification sensitivity to temperature in Irish pasture soils. Soil Use and Management, 2009, 25, 376-388.	4.9	82
189	Chinese cropping systems are a net source of greenhouse gases despite soil carbon sequestration. Global Change Biology, 2018, 24, 5590-5606.	9.5	81
190	Greenhouse gas mitigation in Chinese agriculture: Distinguishing technical and economic potentials. Global Environmental Change, 2014, 26, 53-62.	7.8	80
191	Ecological impacts of wind farms on birds: Questions, hypotheses, and research needs. Renewable and Sustainable Energy Reviews, 2015, 44, 599-607.	16.4	80
192	Consensus, uncertainties and challenges for perennial bioenergy crops and land use. GCB Bioenergy, 2018, 10, 150-164.	5.6	80
193	Nitrogen application rates need to be reduced for half of the rice paddy fields in China. Agriculture, Ecosystems and Environment, 2018, 265, 8-14.	5.3	80
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