Niels H Batjes

List of Publications by Citations

65 papers	9,217 citations	39 h-index	73 g-index
73 ext. papers	10,993 ext. citations	5 avg, IF	6.71 L-index

#	Paper	IF	Citations
65	Total carbon and nitrogen in the soils of the world. *European Journal of Soil Science*, **1996**, 47, 151-163	3.4	2194
64	SoilGrids250m: Global gridded soil information based on machine learning. *PLoS ONE*, **2017**, 12, e0169748	3.7	1379
63	SoilGrids1km--global soil information based on automated mapping. *PLoS ONE*, **2014**, 9, e105992	3.7	621
62	Emissions of N2O and NO from fertilized fields: Summary of available measurement data. *Global Biogeochemical Cycles*, **2002**, 16, 6-1-6-13	5.9	566
61	Modeling global annual N2O and NO emissions from fertilized fields. *Global Biogeochemical Cycles*, **2002**, 16, 28-1-28-9	5.9	436
60	Toward more realistic projections of soil carbon dynamics by Earth system models. *Global Biogeochemical Cycles*, **2016**, 30, 40-56	5.9	251
59	A world dataset of derived soil properties by FAO–UNESCO soil unit for global modelling. *Soil Use and Management*, **1997**, 13, 9-16	3.1	251
58	Total carbon and nitrogen in the soils of the world. *European Journal of Soil Science*, **2014**, 65, 10-21	3.4	227
57	Possibilities for carbon sequestration in tropical and subtropical soils. *Global Change Biology*, **1997**, 3, 161-173	11.4	211
56	Harmonized soil property values for broad-scale modelling (WISE30sec) with estimates of global soil carbon stocks. *Geoderma*, **2016**, 269, 61-68	6.7	208
55	Global effects of soil and climate on leaf photosynthetic traits and rates. *Global Ecology and Biogeography*, **2015**, 24, 706-717	6.1	179
54	Harmonized soil profile data for applications at global and continental scales: updates to the WISE database. *Soil Use and Management*, **2009**, 25, 124-127	3.1	164
53	Changes in organic carbon stocks upon land use conversion in the Brazilian Cerrado: A review. *Agriculture, Ecosystems and Environment*, **2010**, 137, 47-58	5.7	162
52	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	11.4	142
51	Effects of agricultural management practices on soil quality: A review of long-term experiments for Europe and China. *Agriculture, Ecosystems and Environment*, **2018**, 265, 1-7	5.7	131
50	Mitigation of atmospheric CO2 concentrations by increased carbon sequestration in the soil. *Biology and Fertility of Soils*, **1998**, 27, 230-235	6.1	130
49	Development of a world data set of soil water retention properties using pedotransfer rules. *Geoderma*, **1996**, 71, 31-52	6.7	123

48	Carbon and nitrogen stocks in the soils of the Amazon Region. *Geoderma*, **1999**, 89, 273-286	6.7	117
47	Principal land use changes anticipated in Europe. *Agriculture, Ecosystems and Environment*, **1998**, 67, 103-119	5.7	106
46	SoilGrids 2.0: producing soil information for the globe with quantified spatial uncertainty. *Soil*, **2021**, 7, 217-240	5.8	94
45	Predicted soil organic carbon stocks and changes in the Brazilian Amazon between 2000 and 2030. *Agriculture, Ecosystems and Environment*, **2007**, 122, 58-72	5.7	93
44	Options for increasing carbon sequestration in West African soils: an exploratory study with special focus on Senegal. *Land Degradation and Development*, **2001**, 12, 131-142	4.4	83
43	WoSIS: providing standardised soil profile data for the world. *Earth System Science Data*, **2017**, 9, 1-14	10.5	80
42	National and sub-national assessments of soil organic carbon stocks and changes: The GEFSOC modelling system. *Agriculture, Ecosystems and Environment*, **2007**, 122, 3-12	5.7	78
41	Soil legacy data rescue via GlobalSoilMap and other international and national initiatives. *GeoResJ*, **2017**, 14, 1-19		68
40	Simulating SOC changes in 11 land use change chronosequences from the Brazilian Amazon with RothC and Century models. *Agriculture, Ecosystems and Environment*, **2007**, 122, 46-57	5.7	65
39	The GEFSOC soil carbon modelling system: A tool for conducting regional-scale soil carbon inventories and assessing the impacts of land use change on soil carbon. *Agriculture, Ecosystems and Environment*, **2007**, 122, 13-25	5.7	60
38	Standardised soil profile data to support global mapping and modelling (WoSIS snapshot 2019). *Earth System Science Data*, **2020**, 12, 299-320	10.5	60
37	Carbon and nitrogen stocks in the soils of Central and Eastern Europe. *Soil Use and Management*, **2002**, 18, 324-329	3.1	58
36	Mapping soil carbon stocks of Central Africa using SOTER. *Geoderma*, **2008**, 146, 58-65	6.7	54
35	Soil carbon, multiple benefits. *Environmental Development*, **2015**, 13, 33-38	4.1	51
34	Exploring land quality effects on world food supply. *Geoderma*, **1998**, 86, 43-59	6.7	51
33	Effects of mapped variation in soil conditions on estimates of soil carbon and nitrogen stocks for South America. *Geoderma*, **2000**, 97, 135-144	6.7	48
32	S-World: A Global Soil Map for Environmental Modelling. *Land Degradation and Development*, **2017**, 28, 22-33	4.4	45
31	Modelled soil organic carbon stocks and changes in the Indo-Gangetic Plains, India from 1980 to 2030. *Agriculture, Ecosystems and Environment*, **2007**, 122, 84-94	5.7	45

30	PROJECTED CHANGES IN SOIL ORGANIC CARBON STOCKS UPON ADOPTION OF RECOMMENDED SOIL AND WATER CONSERVATION PRACTICES IN THE UPPER TANA RIVER CATCHMENT, KENYA. *Land Degradation and Development*, **2014**, 25, 278-287	4.4	42
29	Benefits of soil carbon: report on the outcomes of an international scientific committee on problems of the environment rapid assessment workshop. *Carbon Management*, **2014**, 5, 185-192	3.3	39
28	Soil carbon stocks of Jordan and projected changes upon improved management of croplands. *Geoderma*, **2006**, 132, 361-371	6.7	39
27	Potential emissions of radiatively active gases from soil to atmosphere with special reference to methane: Development of a global database (WISE). *Journal of Geophysical Research*, **1994**, 99, 16479		39
26	Soil organic carbon stocks under native vegetation Revised estimates for use with the simple assessment option of the Carbon Benefits Project system. *Agriculture, Ecosystems and Environment*, **2011**, 142, 365-373	5.7	38
25	Preparation of consistent soil data sets for modelling purposes: Secondary SOTER data for four case study areas. *Agriculture, Ecosystems and Environment*, **2007**, 122, 26-34	5.7	36
24	Soil carbon stocks and projected changes according to land use and management: a case study for Kenya. *Soil Use and Management*, **2004**, 20, 350-356	3.1	36
23	Estimation of Soil Carbon Gains Upon Improved Management within Croplands and Grasslands of Africa. *Environment, Development and Sustainability*, **2004**, 6, 133-143	4.5	36
22	Predicted soil organic carbon stocks and changes in Jordan between 2000 and 2030 made using the GEFSOC Modelling System. *Agriculture, Ecosystems and Environment*, **2007**, 122, 35-45	5.7	32
21	Organic carbon stocks in the soils of Brazil. *Soil Use and Management*, **2005**, 21, 22-24	3.1	28
20	Pedotransfer functions to estimate soil water content at field capacity and permanent wilting point in hot Arid Western India. *Journal of Earth System Science*, **2018**, 127, 1	1.8	25
19	Pedotransfer functions to estimate bulk density from soil properties and environmental covariates: Rio Doce basin. *Scientia Agricola*, **2016**, 73, 525-534	2.5	25
18	Global assessment of land vulnerability to water erosion on a by grid. *Land Degradation and Development*, **1996**, 7, 353-365	4.4	22
17	Technologically achievable soil organic carbon sequestration in world croplands and grasslands. *Land Degradation and Development*, **2019**, 30, 25-32	4.4	19
16	Machine learning in space and time for modelling soil organic carbon change. *European Journal of Soil Science*, **2020**, 72, 1607	3.4	17
15	Soil Capability: Exploring the Functional Potentials of Soils. *Progress in Soil Science*, **2017**, 27-44		17
14	Batjes, N. H. 1996. Total carbon and nitrogen in the soils of the world. European Journal of Soil Science, 47, 151163. Reflections by N.H. Batjes. *European Journal of Soil Science*, **2014**, 65, 2-3	3.4	16
13	An increased understanding of soil organic carbon stocks and changes in non-temperate areas: National and global implications. *Agriculture, Ecosystems and Environment*, **2007**, 122, 125-136	5.7	16

12	The landscape of soil carbon data: Emerging questions, synergies and databases. *Progress in Physical Geography*, **2019**, 43, 707-719	3.5	13
11	Grazing lands in Sub-Saharan Africa and their potential role in climate change mitigation: What we do and don't know. *Environmental Development*, **2016**, 19, 70-74	4.1	13
10	Soil vulnerability to pollution in Europe. *Soil Use and Management*, **1993**, 9, 25-29	3.1	12
9	SoilGrids 2.0: producing quality-assessed soil information for the globe		7
8	Space-time machine learning for modelling soil organic carbon change		6
7	Organic carbon stocks in the soils of Brazil. *Soil Use and Management*, **2006**, 21, 22-24	3.1	4
6	WoSIS: Serving standardised soil profile data for the world		4
5	Agro-climatic zoning and physical land evaluation in Jamaica. *Soil Use and Management*, **1994**, 10, 9-14	3.1	3
4	Soil carbon stocks and projected changes according to land use and management: a case study for Kenya. *Soil Use and Management*, **2006**, 20, 350-356	3.1	1
3	Development of Global Soil Information Facilities. *Data Science Journal*, **2013**, 12, WDS70-WDS74	2	1
2	Working group report How can we best define functional types and integrate state variables and properties in time and space?. *Developments in Atmospheric Science*, **1999**, 24, 153-167		
1	World inventory of Soil Emission Potentials (WISE): geographic quantification of soil factors that control fluxes of greenhouse gases. *Studies in Environmental Science*, **1995**, 65, 645-650		