

Per Gundersen

List of Publications by Year in descending order

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124
papers

11,476
citations

23500

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104
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138
all docs

138
docs citations

138
times ranked

8406
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitrogen deposition makes a minor contribution to carbon sequestration in temperate forests. <i>Nature</i> , 1999, 398, 145-148.	13.7	676
2	Impact of nitrogen deposition on nitrogen cycling in forests: a synthesis of NITREX data. <i>Forest Ecology and Management</i> , 1998, 101, 37-55.	1.4	536
3	Carbon and nitrogen in forest floor and mineral soil under six common European tree species. <i>Forest Ecology and Management</i> , 2008, 255, 35-48.	1.4	438
4	Change in soil organic carbon following afforestation of former arable land. <i>Forest Ecology and Management</i> , 2002, 169, 137-147.	1.4	387
5	Nitrogen addition reduces soil respiration in a mature tropical forest in southern China. <i>Global Change Biology</i> , 2008, 14, 403-412.	4.2	382
6	Effects of phosphorus addition on soil microbial biomass and community composition in three forest types in tropical China. <i>Soil Biology and Biochemistry</i> , 2012, 44, 31-38.	4.2	379
7	Nitrate leaching in forest ecosystems is related to forest floor CN ratios. <i>Environmental Pollution</i> , 1998, 102, 403-407.	3.7	378
8	Leaching of nitrate from temperate forests – effects of air pollution and forest management. <i>Environmental Reviews</i> , 2006, 14, 1-57.	2.1	335
9	The impact of nitrogen deposition on carbon sequestration by European forests and heathlands. <i>Forest Ecology and Management</i> , 2009, 258, 1814-1823.	1.4	309
10	Do tree species influence soil carbon stocks in temperate and boreal forests?. <i>Forest Ecology and Management</i> , 2013, 309, 4-18.	1.4	296
11	Nitrogen input together with ecosystem nitrogen enrichment predict nitrate leaching from European forests. <i>Global Change Biology</i> , 2002, 8, 1028-1033.	4.2	272
12	Soil CN ratio as a scalar parameter to predict nitrous oxide emissions. <i>Global Change Biology</i> , 2005, 11, 1142-1147.	4.2	251
13	The impact of nitrogen deposition on carbon sequestration in European forests and forest soils. <i>Global Change Biology</i> , 2006, 12, 1151-1173.	4.2	250
14	Novel Approaches to Study Climate Change Effects on Terrestrial Ecosystems in the Field: Drought and Passive Nighttime Warming. <i>Ecosystems</i> , 2004, 7, 583.	1.6	232
15	Sinks for nitrogen inputs in terrestrial ecosystems: a meta-analysis of ¹⁵ N tracer field studies. <i>Ecology</i> , 2012, 93, 1816-1829.	1.5	192
16	Regional Assessment of N Saturation using Foliar and Root $\delta^{15}\text{N}$. <i>Biogeochemistry</i> , 2006, 80, 143-171.	1.7	172
17	Soil carbon stock change following afforestation in Northern Europe: a meta-analysis. <i>Global Change Biology</i> , 2014, 20, 2393-2405.	4.2	172
18	Natural abundance of ¹⁵ N in forests across a nitrogen deposition gradient. <i>Forest Ecology and Management</i> , 1998, 101, 9-18.	1.4	164

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19	Input and output of dissolved organic and inorganic nitrogen in subtropical forests of South China under high air pollution. <i>Biogeosciences</i> , 2008, 5, 339-352.	1.3	159
20	How Forest Management affects Ecosystem Services, including Timber Production and Economic Return: Synergies and Trade-Offs. <i>Ecology and Society</i> , 2012, 17, .	1.0	154
21	Predicting the Effects of Atmospheric Nitrogen Deposition in Conifer Stands: Evidence from the NITREX Ecosystem-Scale Experiments. <i>Ecosystems</i> , 1998, 1, 352-360.	1.6	153
22	Dramatic changes in ectomycorrhizal community composition, root tip abundance and mycelial production along a stand-scale nitrogen deposition gradient. <i>New Phytologist</i> , 2012, 194, 278-286.	3.5	149
23	Synthesis of Nitrogen Pools and Fluxes from European Forest Ecosystems. <i>Water, Air, and Soil Pollution</i> , 1998, 105, 143-154.	1.1	147
24	Exploring the role of ectomycorrhizal fungi in soil carbon dynamics. <i>New Phytologist</i> , 2019, 223, 33-39.	3.5	147
25	The fate of ¹⁵ N-labelled nitrogen deposition in coniferous forest ecosystems. <i>Forest Ecology and Management</i> , 1998, 101, 19-27.	1.4	141
26	Ecologically implausible carbon response?. <i>Nature</i> , 2008, 451, E1-E3.	13.7	141
27	Vegetation and soil biota response to experimentally-changed nitrogen inputs in coniferous forest ecosystems of the NITREX project. <i>Forest Ecology and Management</i> , 1998, 101, 65-79.	1.4	136
28	Litterfall and nutrient return in five tree species in a common garden experiment. <i>Forest Ecology and Management</i> , 2009, 257, 2133-2144.	1.4	129
29	Spatial variability of throughfall fluxes in a spruce forest. <i>Environmental Pollution</i> , 1993, 81, 257-267.	3.7	124
30	Interactive Effects of Nitrogen and Phosphorus on Soil Microbial Communities in a Tropical Forest. <i>PLoS ONE</i> , 2013, 8, e61188.	1.1	120
31	Throughfall Nitrogen Deposition Has Different Impacts on Soil Solution Nitrate Concentration in European Coniferous and Deciduous Forests. <i>Ecosystems</i> , 2004, 7, 180.	1.6	117
32	Carbon and nitrogen cycles in European ecosystems respond differently to global warming. <i>Science of the Total Environment</i> , 2008, 407, 692-697.	3.9	117
33	Title is missing!. <i>Plant and Soil</i> , 2003, 249, 319-330.	1.8	115
34	Effects of enhanced nitrogen deposition in a spruce forest at Klosterhede, Denmark, examined by moderate NH ₄ NO ₃ addition. <i>Forest Ecology and Management</i> , 1998, 101, 251-268.	1.4	103
35	Atmospheric deposition to the edge of a spruce forest in Denmark. <i>Environmental Pollution</i> , 1989, 60, 257-271.	3.7	97
36	Influence of different tree-harvesting intensities on forest soil carbon stocks in boreal and northern temperate forest ecosystems. <i>Forest Ecology and Management</i> , 2015, 351, 9-19.	1.4	97

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37	Input-output budgets at the NITREX sites. <i>Forest Ecology and Management</i> , 1998, 101, 57-64.	1.4	90
38	Nitrogen leaching in response to increased nitrogen inputs in subtropical monsoon forests in southern China. <i>Forest Ecology and Management</i> , 2009, 257, 332-342.	1.4	90
39	Nitrification in Forest Soils: Effects from Nitrogen Deposition on Soil Acidification and Aluminum Release. <i>Reviews of Environmental Contamination and Toxicology</i> , 1990, , 1-45.	0.7	85
40	Nitrogen deposition and the forest nitrogen cycle: role of denitrification. <i>Forest Ecology and Management</i> , 1991, 44, 15-28.	1.4	84
41	Nitrogen mobility in a nitrogen limited forest at Klosterhede, Denmark, examined by NH ₄ NO ₃ addition. <i>Forest Ecology and Management</i> , 1995, 71, 75-88.	1.4	83
42	Nutrient and carbon budgets in forest soils as decision support in sustainable forest management. <i>Forest Ecology and Management</i> , 2007, 238, 167-174.	1.4	81
43	Environmental Services Provided from Riparian Forests in the Nordic Countries. <i>Ambio</i> , 2010, 39, 555-566.	2.8	81
44	Atmospheric deposition and leaching of nitrogen in Chinese forest ecosystems. <i>Journal of Forest Research</i> , 2011, 16, 341-350.	0.7	81
45	Soil Solution Chemistry and Element Fluxes in Three European Heathlands and Their Responses to Warming and Drought. <i>Ecosystems</i> , 2004, 7, 638.	1.6	79
46	Nitrogen deposition and leaching in European forests ? Preliminary results from a data compilation. <i>Water, Air, and Soil Pollution</i> , 1995, 85, 1179-1184.	1.1	78
47	Large Loss of Dissolved Organic Nitrogen from Nitrogen-Saturated Forests in Subtropical China. <i>Ecosystems</i> , 2009, 12, 33-45.	1.6	77
48	Nitrogen processes in terrestrial ecosystems. , 2011, , 99-125.		77
49	NITREX: responses of coniferous forest ecosystems to experimentally changed deposition of nitrogen. <i>Forest Ecology and Management</i> , 1995, 71, 163-169.	1.4	76
50	Experimental design of multifactor climate change experiments with elevated CO ₂ , warming and drought: the CLIMAITE project. <i>Functional Ecology</i> , 2008, 22, 185-195.	1.7	75
51	Do indicators of nitrogen retention and leaching differ between coniferous and broadleaved forests in Denmark?. <i>Forest Ecology and Management</i> , 2009, 258, 1137-1146.	1.4	75
52	The response of methane and nitrous oxide fluxes to forest change in Europe. <i>Biogeosciences</i> , 2012, 9, 3999-4012.	1.3	74
53	Effects of simulated N deposition on foliar nutrient status, N metabolism and photosynthetic capacity of three dominant understory plant species in a mature tropical forest. <i>Science of the Total Environment</i> , 2018, 610-611, 555-562.	3.9	71
54	Seedling growth response of two tropical tree species to nitrogen deposition in southern China. <i>European Journal of Forest Research</i> , 2008, 127, 275-283.	1.1	66

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55	Old-growth forest carbon sinks overestimated. <i>Nature</i> , 2021, 591, E21-E23.	13.7	65
56	Concentration variations in rain and canopy throughfall collected sequentially during individual rain events. <i>Atmospheric Environment</i> , 1994, 28, 3195-3205.	1.9	64
57	Nitrogen saturation experiments (NITREX) in coniferous forest ecosystems in Europe: a summary of results. <i>Environmental Pollution</i> , 1998, 102, 433-437.	3.7	64
58	Soil carbon accumulation and nitrogen retention traits of four tree species grown in common gardens. <i>Forest Ecology and Management</i> , 2013, 309, 47-57.	1.4	64
59	Methane uptake responses to nitrogen deposition in three tropical forests in southern China. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	61
60	Soil-atmosphere exchange of N ₂ O, CO ₂ and CH ₄ along a slope of an evergreen broad-leaved forest in southern China. <i>Plant and Soil</i> , 2009, 319, 37-48.	1.8	61
61	Effects of nitrogen and phosphorus additions on soil microbial biomass and community structure in two reforested tropical forests. <i>Scientific Reports</i> , 2015, 5, 14378.	1.6	60
62	Strong gradients in nitrogen and carbon stocks at temperate forest edges. <i>Forest Ecology and Management</i> , 2016, 376, 45-58.	1.4	56
63	Geothermal ecosystems as natural climate change experiments: The ForHot research site in Iceland as a case study. <i>Icelandic Agricultural Sciences</i> , 0, 29, 53-71.	0.0	55
64	Retention of deposited ammonium and nitrate and its impact on the global forest carbon sink. <i>Nature Communications</i> , 2022, 13, 880.	5.8	55
65	High retention of ¹⁵ N-labeled nitrogen deposition in a nitrogen saturated old-growth tropical forest. <i>Global Change Biology</i> , 2016, 22, 3608-3620.	4.2	53
66	Afforestation effects on SOC in former cropland: oak and spruce chronosequences resampled after 13 years. <i>Global Change Biology</i> , 2014, 20, 2938-2952.	4.2	50
67	A new method for estimation of dry deposition of particles based on throughfall measurements in a forest edge. <i>Atmospheric Environment Part A General Topics</i> , 1992, 26, 1553-1559.	1.3	49
68	Nitrate concentrations in soil solutions below Danish forests. <i>Forest Ecology and Management</i> , 1999, 114, 71-82.	1.4	48
69	Effects of long-term nitrogen addition on phosphorus cycling in organic soil horizons of temperate forests. <i>Biogeochemistry</i> , 2018, 141, 167-181.	1.7	48
70	Sequestration of carbon in the humus layer of Swedish forests – direct measurements. <i>Canadian Journal of Forest Research</i> , 2009, 39, 962-975.	0.8	46
71	Nitrate leaching from three afforestation chronosequences on former arable land in Denmark. <i>Global Change Biology</i> , 2007, 13, 1250-1264.	4.2	45
72	Nitrous oxide and methane exchange in two small temperate forest catchments – effects of hydrological gradients and implications for global warming potentials of forest soils. <i>Biogeochemistry</i> , 2012, 107, 437-454.	1.7	42

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73	Exceedance of critical loads and of critical limits impacts tree nutrition across Europe. <i>Annals of Forest Science</i> , 2015, 72, 929-939.	0.8	39
74	Changes in microbial activities and biomasses over a forest floor gradient in C-to-N ratio. <i>Plant and Soil</i> , 2012, 355, 75-86.	1.8	37
75	Stand age and tree species affect N<sub>2</sub<sub>O and CH<sub>4</sub</sub> exchange from afforested soils. <i>Biogeosciences</i> , 2011, 8, 2535-2546.	1.3	35
76	Experimental manipulation of forest ecosystems: lessons from large roof experiments. <i>Forest Ecology and Management</i> , 1998, 101, 339-352.	1.4	34
77	Experimental manipulation of water and nutrient input to a Norway spruce plantation at Klosterhede, Denmark. <i>Plant and Soil</i> , 1995, 168-169, 613-622.	1.8	33
78	Vertical Redistribution of Soil Organic Carbon Pools After Twenty Years of Nitrogen Addition in Two Temperate Coniferous Forests. <i>Ecosystems</i> , 2019, 22, 379-400.	1.6	33
79	Nitrate leaching in coniferous forest ecosystems: The European Field-Scale Manipulation Experiments NITREX (Nitrogen Saturation Experiments) and EXMAN (Experimental Manipulation of Forest) TJ ETQq1 1 0.784314.pdf / Overdøck 10	1.8	32
80	Role of six European tree species and land-use legacy for nitrogen and water budgets in forests. <i>Global Change Biology</i> , 2010, 16, 2224-2240.	4.2	32
81	Mycorrhizal association of common European tree species shapes biomass and metabolic activity of bacterial and fungal communities in soil. <i>Soil Biology and Biochemistry</i> , 2020, 149, 107933.	4.2	31
82	The natural abundance of ¹⁵ N in litter and soil profiles under six temperate tree species: N cycling depends on tree species traits and site fertility. <i>Plant and Soil</i> , 2013, 368, 375-392.	1.8	30
83	Long-term field comparison of ceramic and poly(tetrafluoroethene) porous cup soil water samplers. <i>Environmental Science & Technology</i> , 1992, 26, 2005-2011.	4.6	29
84	Experimental manipulations of water and nutrient input to a Norway spruce plantation at Klosterhede, Denmark. <i>Plant and Soil</i> , 1995, 168-169, 601-611.	1.8	29
85	Response of Nitrogen Leaching to Nitrogen Deposition in Disturbed and Mature Forests of Southern China. <i>Pedosphere</i> , 2009, 19, 111-120.	2.1	29
86	Influence of hydromorphic soil conditions on greenhouse gas emissions and soil carbon stocks in a Danish temperate forest. <i>Forest Ecology and Management</i> , 2012, 284, 185-195.	1.4	29
87	Fates of atmospheric deposited nitrogen in an Asian tropical primary forest. <i>Forest Ecology and Management</i> , 2018, 411, 213-222.	1.4	29
88	Dynamics of soil inorganic nitrogen and their responses to nitrogen additions in three subtropical forests, south China. <i>Journal of Environmental Sciences</i> , 2006, 18, 752-9.	3.2	29
89	Nitrex: The timing of response of coniferous forest ecosystems to experimentally-changed nitrogen deposition. <i>Water, Air, and Soil Pollution</i> , 1995, 85, 1623-1628.	1.1	27
90	Conversion of cropland to forest increases soil CH ₄ oxidation and abundance of CH ₄ oxidizing bacteria with stand age. <i>Applied Soil Ecology</i> , 2014, 79, 49-58.	2.1	27

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91	Response of soil fauna to simulated nitrogen deposition: A nursery experiment in subtropical China. <i>Journal of Environmental Sciences</i> , 2007, 19, 603-609.	3.2	25
92	Analyzing the hydrological impact of afforestation and tree species in two catchments with contrasting soil properties using the spatially distributed model MIKE SHE SWET. <i>Agricultural and Forest Meteorology</i> , 2017, 239, 118-133.	1.9	22
93	Experimental manipulations of water and nutrient input to a Norway spruce plantation at Klosterhede, Denmark. <i>Plant and Soil</i> , 1995, 168-169, 623-632.	1.8	21
94	Water quality improvements from afforestation in an agricultural catchment in Denmark illustrated with the INCA model. <i>Hydrology and Earth System Sciences</i> , 2004, 8, 764-777.	1.9	21
95	Resistant Soil Microbial Communities Show Signs of Increasing Phosphorus Limitation in Two Temperate Forests After Long-Term Nitrogen Addition. <i>Frontiers in Forests and Global Change</i> , 2019, 2, .	1.0	21
96	Nitrogen input <sup>15N</sup> signatures are reflected in plant <sup>15N</sup> natural abundances in subtropical forests in China. <i>Biogeosciences</i> , 2017, 14, 2359-2370.	1.3	18
97	Altered microbial communities and nitrogen availability in temperate forest edges. <i>Soil Biology and Biochemistry</i> , 2018, 116, 179-188.	4.2	18
98	Fate of atmospherically deposited NH_4^+ and NO_3^- in two temperate forests in China: temporal pattern and redistribution. <i>Ecological Applications</i> , 2019, 29, e01920.	1.8	17
99	Changes in soil water balance following afforestation of former arable soils in Denmark as evaluated using the DAISY model. <i>Journal of Hydrology</i> , 2013, 484, 128-139.	2.3	16
100	Dynamics and multi-annual fate of atmospherically deposited nitrogen in montane tropical forests. <i>Global Change Biology</i> , 2021, 27, 2076-2087.	4.2	16
101	Comparing biomass and nutrient removals of stems and fresh and predried whole trees in thinnings in two Norway spruce experiments. <i>Canadian Journal of Forest Research</i> , 2008, 38, 2660-2673.	0.8	15
102	Carbon sequestration rates in Swedish forest soils – a comparison of three approaches. <i>Silva Fennica</i> , 2007, 41, .	0.5	11
103	Forest Ecosystem Responses to Atmospheric Pollution: Linking Comparative With Experimental Studies. <i>Water, Air and Soil Pollution</i> , 2004, 4, 207-220.	0.8	10
104	Decadal fates and impacts of nitrogen additions on temperate forest carbon storage: a data-model comparison. <i>Biogeosciences</i> , 2019, 16, 2771-2793.	1.3	10
105	Negative effects of long-term phosphorus additions on understory plants in a primary tropical forest. <i>Science of the Total Environment</i> , 2021, 798, 149306.	3.9	10
106	Unexpected high retention of ¹⁵ N-labeled nitrogen in a tropical legume forest under long-term nitrogen enrichment. <i>Global Change Biology</i> , 2022, 28, 1529-1543.	4.2	10
107	The long-term fate of deposited nitrogen in temperate forest soils. <i>Biogeochemistry</i> , 2020, 150, 1-15.	1.7	8
108	Nitrogen Cycling in a Norway Spruce Plantation in Denmark – A SOILN Model Application Including Organic N Uptake. <i>Scientific World Journal</i> , The, 2001, 1, 394-406.	0.8	6

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109	Edge effects in temperate forests subjected to high nitrogen deposition. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7032.	3.3	6
110	Design and performance of an ecosystem-scale forest soil warming experiment with infrared heater arrays. Methods in Ecology and Evolution, 2022, 13, 2065-2077.	2.2	6
111	Water Balance in Afforestation Chronosequences of Common Oak and Norway Spruce on Former Arable Soils in Denmark as Evaluated Using the DAISY Model. Procedia Environmental Sciences, 2013, 19, 217-223.	1.3	4
112	Species Differences in Nitrogen Acquisition in Humid Subtropical Forest Inferred From 15N Natural Abundance and Its Response to Tracer Addition. Forests, 2019, 10, 991.	0.9	4
113	Retention and partitioning of 15N-labeled deposited N in a tropical plantation forest. Biogeochemistry, 2021, 152, 237-251.	1.7	4
114	Experimental manipulations of water and nutrient input to a Norway spruce plantation at Klosterhede, Denmark. , 1995, , 601-611.		4
115	Nitrogen and Carbon Interactions of Forest Soil Water. Ecological Studies, 2000, , 332-340.	0.4	3
116	Nitrate leaching in forest ecosystems is related to forest floor C/N ratios. , 1998, , 403-407.		3
117	Nitrogen saturation experiments (NITREX) in coniferous forest ecosystems in Europe: a summary of results. , 1998, , 433-437.		3
118	Nitrogen deposition and carbon sequestration. Nature, 1999, 400, 630-630.	13.7	2
119	Guidelines for Planning Afforestation of Former Arable Land. , 2007, , 249-291.		2
120	Synthesis of Nitrogen Pools and Fluxes from European Forest Ecosystems. , 1998, , 143-154.		2
121	How much carbon is sequestered in forest soils? Is it enhanced by nitrogen deposition and for how long?. IOP Conference Series: Earth and Environmental Science, 2009, 6, 082013.	0.2	1
122	Corrigendum to "Stand age and tree species affect N ₂ O and CH ₄ exchange from afforested soils" published in Biogeosciences, 8, 2535-2546, 2011. Biogeosciences, 2012, 9, 269-270.	1.3	0
123	Forest Ecosystem Responses to Atmospheric Pollution: Linking Comparative with Experimental Studies. , 2004, , 207-220.		0
124	Experimental manipulation of water and nutrient input to a Norway spruce plantation at Klosterhede, Denmark. , 1995, , 613-622.		0