

C M Iversen

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

10,653
citations

53660

45
h-index

46693

89
g-index

100
all docs

100
docs citations

100
times ranked

12142
citing authors

#	ARTICLE	IF	CITATIONS
1	TRY plant trait database – enhanced coverage and open access. <i>Global Change Biology</i> , 2020, 26, 119-188.	4.2	1,038
2	Redefining fine roots improves understanding of below-ground contributions to terrestrial biosphere processes. <i>New Phytologist</i> , 2015, 207, 505-518.	3.5	906
3	CO ₂ enhancement of forest productivity constrained by limited nitrogen availability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 19368-19373.	3.3	814
4	Plant functional trait change across a warming tundra biome. <i>Nature</i> , 2018, 562, 57-62.	13.7	451
5	Evaluation of 11 terrestrial carbon-nitrogen cycle models against observations from two temperate F&A₂ E₂ enrichment studies. <i>New Phytologist</i> , 2014, 202, 803-822.	3.5	378
6	The fungal collaboration gradient dominates the root economics space in plants. <i>Science Advances</i> , 2020, 6, .	4.7	377
7	Increases in nitrogen uptake rather than nitrogen-use efficiency support higher rates of temperate forest productivity under elevated CO ₂ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 14014-14019.	3.3	353
8	Potential carbon emissions dominated by carbon dioxide from thawed permafrost soils. <i>Nature Climate Change</i> , 2016, 6, 950-953.	8.1	288
9	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO ₂ . <i>New Phytologist</i> , 2021, 229, 2413-2445.	3.5	286
10	Root traits as drivers of plant and ecosystem functioning: current understanding, pitfalls and future research needs. <i>New Phytologist</i> , 2021, 232, 1123-1158.	3.5	277
11	Where does the carbon go? A model-data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest free-air CO ₂ enrichment sites. <i>New Phytologist</i> , 2014, 203, 883-899.	3.5	263
12	The unseen iceberg: plant roots in arctic tundra. <i>New Phytologist</i> , 2015, 205, 34-58.	3.5	260
13	A global Fine-Root Ecology Database to address below-ground challenges in plant ecology. <i>New Phytologist</i> , 2017, 215, 15-26.	3.5	250
14	Using ecosystem experiments to improve vegetation models. <i>Nature Climate Change</i> , 2015, 5, 528-534.	8.1	249
15	Plant functional types in Earth system models: past experiences and future directions for application of dynamic vegetation models in high-latitude ecosystems. <i>Annals of Botany</i> , 2014, 114, 1-16.	1.4	240
16	Climate, soil and plant functional types as drivers of global fine-root trait variation. <i>Journal of Ecology</i> , 2017, 105, 1182-1196.	1.9	234
17	Digging deeper: fine-root responses to rising atmospheric CO ₂ concentration in forested ecosystems. <i>New Phytologist</i> , 2010, 186, 346-357.	3.5	231
18	A starting guide to root ecology: strengthening ecological concepts and standardising root classification, sampling, processing and trait measurements. <i>New Phytologist</i> , 2021, 232, 973-1122.	3.5	216

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19	Root structural and functional dynamics in terrestrial biosphere models – evaluation and recommendations. <i>New Phytologist</i> , 2015, 205, 59-78.	3.5	214
20	Organic matter transformation in the peat column at Marcell Experimental Forest: Humification and vertical stratification. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 661-675.	1.3	170
21	Building a better foundation: improving root trait measurements to understand and model plant and ecosystem processes. <i>New Phytologist</i> , 2017, 215, 27-37.	3.5	159
22	An integrated framework of plant form and function: the belowground perspective. <i>New Phytologist</i> , 2021, 232, 42-59.	3.5	153
23	CO ₂ enrichment increases carbon and nitrogen input from fine roots in a deciduous forest. <i>New Phytologist</i> , 2008, 179, 837-847.	3.5	146
24	Open Science principles for accelerating trait-based science across the Tree of Life. <i>Nature Ecology and Evolution</i> , 2020, 4, 294-303.	3.4	144
25	A pan-Arctic synthesis of CH ₄ and CO ₂ production from anoxic soil incubations. <i>Global Change Biology</i> , 2015, 21, 2787-2803.	4.2	138
26	NITROGEN UPTAKE, DISTRIBUTION, TURNOVER, AND EFFICIENCY OF USE IN A CO ₂ -ENRICHED SWEETGUM FOREST. <i>Ecology</i> , 2006, 87, 5-14.	1.5	117
27	Physical and Functional Constraints on Viable Belowground Acquisition Strategies. <i>Frontiers in Plant Science</i> , 2019, 10, 1215.	1.7	115
28	Comprehensive ecosystem model data synthesis using multiple data sets at two temperate forest free-air CO ₂ enrichment experiments: Model performance at ambient CO ₂ concentration. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 937-964.	1.3	95
29	Peatland warming strongly increases fine-root growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 17627-17634.	3.3	95
30	Global root traits (GRooT) database. <i>Global Ecology and Biogeography</i> , 2021, 30, 25-37.	2.7	90
31	Experimental warming alters the community composition, diversity, and N ₂ fixation activity of peat moss (<i>Sphagnum fallax</i>) microbiomes. <i>Global Change Biology</i> , 2019, 25, 2993-3004.	4.2	89
32	Soil carbon and nitrogen cycling and storage throughout the soil profile in a sweetgum plantation after 11 years of CO ₂ enrichment. <i>Global Change Biology</i> , 2012, 18, 1684-1697.	4.2	74
33	Forest fine-root production and nitrogen use under elevated CO ₂ : contrasting responses in evergreen and deciduous trees explained by a common principle. <i>Global Change Biology</i> , 2009, 15, 132-144.	4.2	72
34	Stored carbon partly fuels fine-root respiration but is not used for production of new fine roots. <i>New Phytologist</i> , 2013, 199, 420-430.	3.5	69
35	Rapid Net Carbon Loss From a Whole-Ecosystem Warmed Peatland. <i>AGU Advances</i> , 2020, 1, e2020AV000163.	2.3	69
36	Decadal biomass increment in early secondary succession woody ecosystems is increased by CO ₂ enrichment. <i>Nature Communications</i> , 2019, 10, 454.	5.8	68

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37	Scaling plant nitrogen use and uptake efficiencies in response to nutrient addition in peatlands. <i>Ecology</i> , 2010, 91, 693-707.	1.5	64
38	Root traits explain plant species distributions along climatic gradients yet challenge the nature of ecological trade-offs. <i>Nature Ecology and Evolution</i> , 2021, 5, 1123-1134.	3.4	62
39	Plant root distributions and nitrogen uptake predicted by a hypothesis of optimal root foraging. <i>Ecology and Evolution</i> , 2012, 2, 1235-1250.	0.8	59
40	Fine-root growth in a forested bog is seasonally dynamic, but shallowly distributed in nutrient-poor peat. <i>Plant and Soil</i> , 2018, 424, 123-143.	1.8	58
41	Limited effects of six years of fertilization on carbon mineralization dynamics in a Minnesota fen. <i>Soil Biology and Biochemistry</i> , 2005, 37, 1197-1204.	4.2	57
42	Advancing the use of minirhizotrons in wetlands. <i>Plant and Soil</i> , 2012, 352, 23-39.	1.8	57
43	Tundra Trait Team: A database of plant traits spanning the tundra biome. <i>Global Ecology and Biogeography</i> , 2018, 27, 1402-1411.	2.7	57
44	Litterfall ¹⁵ N abundance indicates declining soil nitrogen availability in a free-air CO ₂ enrichment experiment. <i>Ecology</i> , 2011, 92, 133-139.	1.5	55
45	Root traits explain observed tundra vegetation nitrogen uptake patterns: Implications for trait-based land models. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 3101-3112.	1.3	52
46	Global plant trait relationships extend to the climatic extremes of the tundra biome. <i>Nature Communications</i> , 2020, 11, 1351.	5.8	52
47	Traditional plant functional groups explain variation in economic but not size-related traits across the tundra biome. <i>Global Ecology and Biogeography</i> , 2019, 28, 78-95.	2.7	49
48	Net mineralization of N at deeper soil depths as a potential mechanism for sustained forest production under elevated [CO ₂]. <i>Global Change Biology</i> , 2011, 17, 1130-1139.	4.2	48
49	Using root form to improve our understanding of root function. <i>New Phytologist</i> , 2014, 203, 707-709.	3.5	48
50	Nutrient control of microbial carbon cycling along an ombrotrophic-minerotrophic peatland gradient. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	46
51	Timing and magnitude of C partitioning through a young loblolly pine (<i>Pinus taeda</i> L.) stand using ¹³ C labeling and shade treatments. <i>Tree Physiology</i> , 2012, 32, 799-813.	1.4	38
52	Nitrogen limitation in a sweetgum plantation: implications for carbon allocation and storage. <i>Canadian Journal of Forest Research</i> , 2008, 38, 1021-1032.	0.8	37
53	Alder Distribution and Expansion Across a Tundra Hillslope: Implications for Local N Cycling. <i>Frontiers in Plant Science</i> , 2019, 10, 1099.	1.7	37
54	Arctic Vegetation Mapping Using Unsupervised Training Datasets and Convolutional Neural Networks. <i>Remote Sensing</i> , 2019, 11, 69.	1.8	35

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55	Mapping Arctic Plant Functional Type Distributions in the Barrow Environmental Observatory Using WorldView-2 and LiDAR Datasets. <i>Remote Sensing</i> , 2016, 8, 733.	1.8	34
56	Temporal and Spatial Variation in Peatland Carbon Cycling and Implications for Interpreting Responses of an Ecosystemâ€ˆScale Warming Experiment. <i>Soil Science Society of America Journal</i> , 2017, 81, 1668-1688.	1.2	34
57	Fineâ€ˆroot dynamics vary with soil depth and precipitation in a lowâ€ˆnutrient tropical forest in the Central Amazonia. <i>Plant-Environment Interactions</i> , 2020, 1, 3-16.	0.7	34
58	Long-term carbon and nitrogen dynamics at SPRUCE revealed through stable isotopes in peat profiles. <i>Biogeosciences</i> , 2017, 14, 2481-2494.	1.3	32
59	Modeling the spatiotemporal variability in subsurface thermal regimes across a low-relief polygonal tundra landscape. <i>Cryosphere</i> , 2016, 10, 2241-2274.	1.5	29
60	The landscape of soil carbon data: Emerging questions, synergies and databases. <i>Progress in Physical Geography</i> , 2019, 43, 707-719.	1.4	27
61	Integrating Arctic Plant Functional Types in a Land Surface Model Using Aboveâ€ˆand Belowground Field Observations. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002396.	1.3	27
62	Local-scale Arctic tundra heterogeneity affects regional-scale carbon dynamics. <i>Nature Communications</i> , 2020, 11, 4925.	5.8	25
63	Isotopic identification of soil and permafrost nitrate sources in an Arctic tundra ecosystem. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1000-1017.	1.3	22
64	Controls on Fine-Scale Spatial and Temporal Variability of Plant-Available Inorganic Nitrogen in a Polygonal Tundra Landscape. <i>Ecosystems</i> , 2019, 22, 528-543.	1.6	21
65	Highâ€ˆresolution minirhizotrons advance our understanding of rootâ€ˆfungal dynamics in an experimentally warmed peatland. <i>Plants People Planet</i> , 2021, 3, 640-652.	1.6	20
66	Forest soil carbon oxidation state and oxidative ratio responses to elevated CO ₂ . <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1797-1811.	1.3	19
67	Evaluating the Community Land Model in a pine stand with shading manipulations and ¹³ C labeling. <i>Biogeosciences</i> , 2016, 13, 641-657.	1.3	18
68	Significant inconsistency of vegetation carbon density in CMIP5 Earth system models against observational data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 2282-2297.	1.3	17
69	Local Spatial Heterogeneity of Holocene Carbon Accumulation throughout the Peat Profile of an Ombrotrophic Northern Minnesota Bog. <i>Radiocarbon</i> , 2018, 60, 941-962.	0.8	15
70	Nitrogen and phosphorus cycling in an ombrotrophic peatland: a benchmark for assessing change. <i>Plant and Soil</i> , 2021, 466, 649-674.	1.8	15
71	The Alaska Arctic Vegetation Archive (AVA-AK). <i>Phytocoenologia</i> , 2016, 46, 221-229.	1.2	14
72	Assessing Impacts of Plant Stoichiometric Traits on Terrestrial Ecosystem Carbon Accumulation Using the E3SM Land Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001841.	1.3	14

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73	Filling gaps in our understanding of belowground plant traits across the world: an introduction to a Virtual Issue. <i>New Phytologist</i> , 2021, 231, 2097-2103.	3.5	14
74	Topographical Controls on Hillslope-Scale Hydrology Drive Shrub Distributions on the Seward Peninsula, Alaska. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG005823.	1.3	13
75	Whole-Ecosystem Warming Increases Plant-Available Nitrogen and Phosphorus in an Ombrotrophic Bog. <i>Ecosystems</i> , 2023, 26, 86-113.	1.6	13
76	Forest stand and canopy development unaltered by 12 years of CO ₂ enrichment*. <i>Tree Physiology</i> , 2022, 42, 428-440.	1.4	12
77	Genomics in a changing arctic: critical questions await the molecular ecologist. <i>Molecular Ecology</i> , 2015, 24, 2301-2309.	2.0	10
78	CO ₂ Enhancement of Forest Productivity Constrained by Limited Nitrogen Availability. <i>Nature Precedings</i> , 0, , .	0.1	9
79	A Scientific Function Test Framework for Modular Environmental Model Development: Application to the Community Land Model. , 2015, , .		9
80	Evaluating alternative ebullition models for predicting peatland methane emission and its pathways via data-model fusion. <i>Biogeosciences</i> , 2022, 19, 2245-2262.	1.3	5
81	Terrestrial Plant Productivity and Carbon Allocation in a Changing Climate. , 2014, , 297-316.		4
82	Expanding Use of Plant Trait Observation in Earth System Models. <i>Eos</i> , 2016, 97, .	0.1	4
83	Moving forward with fine-root definitions and research. <i>New Phytologist</i> , 2016, 212, 313-313.	3.5	3
84	Building a Virtual Ecosystem Dynamic Model for Root Research. <i>Environmental Modelling and Software</i> , 2017, 89, 97-105.	1.9	3
85	Introduction to a <i>Virtual Issue</i> on root traits. <i>New Phytologist</i> , 2017, 215, 5-8.	3.5	3
86	Better Plant Data at the Root of Ecosystem Models. <i>Eos</i> , 2018, 99, .	0.1	3
87	The Fate of Root Carbon in Soil: Data and Model Gaps. <i>Eos</i> , 2018, 99, .	0.1	3
88	Assessing dynamic vegetation model parameter uncertainty across Alaskan arctic tundra plant communities. <i>Ecological Applications</i> , 2022, 32, e02499.	1.8	3
89	Organized Oral Session 3. Missing Links in the Root-Soil Organic Matter Continuum. <i>Bulletin of the Ecological Society of America</i> , 2010, 91, 54-64.	0.2	2
90	Untargeted Exometabolomics Provides a Powerful Approach to Investigate Biogeochemical Hotspots with Vegetation and Polygon Type in Arctic Tundra Soils. <i>Soil Systems</i> , 2021, 5, 10.	1.0	1

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91	Deciphering the shifting role of intrinsic and extrinsic drivers on moss decomposition in peatlands over a 5-year period. <i>Oikos</i> , 2022, 2022, .	1.2	0