Adrien C Finzi

List of Publications by Year
in descending order

103 papers	14,155 citations	23567 58 h-index	37204 96 g-index
118 all docs	118 docs citations	118 times ranked	11901 citing authors

#	Article	IF	Citations
1	Progressive Nitrogen Limitation of Ecosystem Responses to Rising Atmospheric Carbon Dioxide. BioScience, 2004, 54, 731.	4.9	1,092
2	Forest response to elevated CO2 is conserved across a broad range of productivity. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18052-18056.	7.1	880
3	Mycorrhiza-mediated competition between plants and decomposers drives soil carbon storage. Nature, 2014, 505, 543-545.	27.8	743
4	Causes and consequences of resource heterogeneity in forests: interspecific variation in light transmission by canopy trees. Canadian Journal of Forest Research, 1994, 24, 337-349.	1.7	620
5	Enhanced root exudation induces microbial feedbacks to N cycling in a pine forest under longâ€term CO₂ fumigation. Ecology Letters, 2011, 14, 187-194.	6.4	618
6	Net Primary Production of a Forest Ecosystem with Experimental CO2 Enrichment. Science, 1999, 284, 1177-1179.	12.6	460
7	Rhizosphere processes are quantitatively important components of terrestrial carbon and nutrient cycles. Global Change Biology, 2015, 21, 2082-2094.	9.5	424
8	Evaluation of 11 terrestrial carbonâ€“nitrogen cycle models against observations from two temperate <scp>F</scp>reeâ€<scp>A</scp>ir <scp>CO</scp>₂<scp> E</scp>nrichment studies. New Phytologist, 2014, 202, 803-822.	7.3	378
9	Increases in the flux of carbon belowground stimulate nitrogen uptake and sustain the long-term enhancement of forest productivity under elevated CO2. Ecology Letters, 2011, 14, 349-357.	6.4	374
10	Increases in nitrogen uptake rather than nitrogen-use efficiency support higher rates of temperate forest productivity under elevated CO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14014-14019.	7.1	353
11	Chronic nitrogen additions suppress decomposition and sequester soil carbon in temperate forests. Biogeochemistry, 2014, 121, 305-316.	3.5	302
12	Primary productivity of planet earth: biological determinants and physical constraints in terrestrial and aquatic habitats. Global Change Biology, 2001, 7, 849-882.	9.5	281
13	Forest carbon balance under elevated CO2. Oecologia, 2002, 131, 250-260.	2.0	253
14	Roots and fungi accelerate carbon and nitrogen cycling in forests exposed to elevated CO₂. Ecology Letters, 2012, 15, 1042-1049.	6.4	251
15	Reâ€assessment of plant carbon dynamics at the Duke freeâ€air CO₂ enrichment site: interactions of atmospheric [CO₂] with nitrogen and water availability over stand development. New Phytologist, 2010, 185, 514-528.	7.3	242
16	Root exudates increase N availability by stimulating microbial turnover of fast-cycling N pools. Soil Biology and Biochemistry, 2017, 106, 119-128.	8.8	222
17	Carbon and nitrogen dynamics during forest stand development: a global synthesis. New Phytologist, 2011, 190, 977-989.	7.3	221
18	Responses and feedbacks of coupled biogeochemical cycles to climate change: examples from terrestrial ecosystems. Frontiers in Ecology and the Environment, 2011, 9, 61-67.	4.0	214

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19	PROGRESSIVE NITROGEN LIMITATION OF ECOSYSTEM PROCESSES UNDER ELEVATED CO_2IN A WARM-TEMPERATE FOREST. Ecology, 2006, 87, 15-25.	3.2	210
20	Stoichiometry constrains microbial response to root exudation- insights from a model and a field experiment in a temperate forest. Biogeosciences, 2013, 10, 821-838.	3.3	197
21	Sustainability of terrestrial carbon sequestration: A case study in Duke Forest with inversion approach. Global Biogeochemical Cycles, 2003, 17, .	4.9	191
22	Root carbon inputs to the rhizosphere stimulate extracellular enzyme activity and increase nitrogen availability in temperate forest soils. Biogeochemistry, 2013, 115, 65-76.	3.5	176
23	The nitrogen budget of a pine forest under free air CO_2 enrichment. Oecologia, 2002, 132, 567-578.	2.0	164
24	Are aboveâ€and belowâ€ground phenology in sync?. New Phytologist, 2015, 205, 1054-1061.	7.3	162
25	CANOPY TREEâ€"SOIL INTERACTIONS WITHIN TEMPERATE FORESTS: SPECIES EFFECTS ON SOIL CARBON AND NITROGEN. , 1998, 8, 440-446.		161
26	Forest Litter Production, Chemistry, and Decomposition Following Two Years of Free-Air CO_2 Enrichment. Ecology, 2001, 82, 470.	3.2	144
27	The Millennial model: in search of measurable pools and transformations for modeling soil carbon in the new century. Biogeochemistry, 2018, 137, 51-71.	3.5	139
28	Ecosystem responses to elevated <scp>CO</scp>₂ governed by plantâ€"soil interactions and the cost of nitrogen acquisition. New Phytologist, 2018, 217, 507-522.	7.3	139
29	Exposure to an enriched CO_2 atmosphere alters carbon assimilation and allocation in a pine forest ecosystem. Global Change Biology, 2003, 9, 1378-1400.	9.5	133
30	Fine root dynamics in a loblolly pine forest are influenced by freeâ€airâ€CO₂â€enrichment: a sixâ€yearâ€minirhizotron study. Global Change Biology, 2008, 14, 588-602.	9.5	132
31	Sapling growth in response to light and nitrogen availability in a southern New England forest. Forest Ecology and Management, 2000, 131, 153-165.	3.2	130
32	THE UPTAKE OF AMINO ACIDS BY MICROBES AND TREES IN THREE COLD-TEMPERATE FORESTS. Ecology, 2005, 86, 3345-3353.	3.2	128
33	Ready or Not, Garlic Mustard Is Moving In: Alliaria petiolata as a Member of Eastern North American Forests. BioScience, 2008, 58, 426-436.	4.9	116
34	Assessing Why Two Introduced Conyza Differ in Their Ability to Invade Mediterranean Old Fields. Ecology, 1996, 77, 791-804.	3.2	115
35	SOIL NITROGEN CYCLING UNDER ELEVATED CO_2: A SYNTHESIS OF FOREST FACE EXPERIMENTS. , 2003, 13, 1508-1514.		114
36	SOIL CARBON SEQUESTRATION AND TURNOVER IN A PINE FOREST AFTER SIX YEARS OF ATMOSPHERIC CO_2ENRICHMENT. Ecology, 2005, 86, 1835-1847.	3.2	113

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37	Introduction to coupled biogeochemical cycles. Frontiers in Ecology and the Environment, 2011, 9, 5-8.	4.0	111
38	Aboveground sink strength in forests controls the allocation of carbon below ground and its [CO2]-induced enhancement. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19362-19367.	7.1	109
39	Temporal dynamics and spatial variability in the enhancement of canopy leaf area under elevated atmospheric CO₂. Global Change Biology, 2007, 13, 2479-2497.	9.5	107
40	Canopy tree-soil interactions within temperate forests: effects of soil elemental composition and texture on species distributions. Canadian Journal of Forest Research, 1997, 27, 1110-1116.	1.7	103
41	The invasive species Alliaria petiolata (garlic mustard) increases soil nutrient availability in northern hardwood-conifer forests. Oecologia, 2008, 157, 459-471.	2.0	102
42	Depleted soil carbon and nitrogen pools beneath impervious surfaces. Environmental Pollution, 2012, 164, 248-251.	7.5	101
43	Winter soil freeze-thaw cycles lead to reductions in soil microbial biomass and activity not compensated for by soil warming. Soil Biology and Biochemistry, 2018, 116, 39-47.	8.8	98
44	Microbial Community Responses to Atmospheric Carbon Dioxide Enrichment in a Warm-Temperate Forest. Ecosystems, 2006, 9, 215-226.	3.4	95
45	Belowground carbon flux links biogeochemical cycles and resourceâ€use efficiency at the global scale. Ecology Letters, 2016, 19, 1419-1428.	6.4	95
46	Canopy leaf area constrains [CO2]-induced enhancement of productivity and partitioning among aboveground carbon pools. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19356-19361.	7.1	94
47	Increasing plant use of organic nitrogen with elevation is reflected in nitrogen uptake rates and ecosystem Î´¹⁵N. Ecology, 2011, 92, 883-891.	3.2	90
48	Inconsistent definitions of â€œurbanâ€•result in different conclusions about the size of urban carbon and nitrogen stocks. Ecological Applications, 2012, 22, 1015-1035.	3.8	89
49	Non-additive effects of litter mixtures on net N mineralization in a southern New England forest. Forest Ecology and Management, 1998, 105, 129-136.	3.2	87
50	Microbial carbon use efficiency predicted from genome-scale metabolic models. Nature Communications, 2019, 10, 3568.	12.8	87
51	Substrate supply, fine roots, and temperature control proteolytic enzyme activity in temperate forest soils. Ecology, 2011, 92, 892-902.	3.2	86
52	Soil respiration in a northeastern US temperate forest: a 22â€year synthesis. Ecosphere, 2013, 4, 1-28.	2.2	83
53	Soil carbon sequestration in a pine forest after 9 years of atmospheric CO₂ enrichment. Global Change Biology, 2008, 14, 2910-2922.	9.5	82
54	The effect of experimental warming and precipitation change on proteolytic enzyme activity: positive feedbacks to nitrogen availability are not universal. Global Change Biology, 2012, 18, 2617-2625.	9.5	80

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55	Decades of atmospheric deposition have not resulted in widespread phosphorus limitation or saturation of tree demand for nitrogen in southern New England. Biogeochemistry, 2009, 92, 217-229.	3.5	72
56	Forest fineâ€root production and nitrogen use under elevated CO₂: contrasting responses in evergreen and deciduous trees explained by a common principle. Global Change Biology, 2009, 15, 132-144.	9.5	72
57	Intentional versus unintentional nitrogen use in the United States: trends, efficiency and implications. Biogeochemistry, 2013, 114, 11-23.	3.5	72
58	Intact amino acid uptake by northern hardwood and conifer trees. Oecologia, 2009, 160, 129-138.	2.0	69
59	Carbon budget of the Harvard Forest Longâ€Term Ecological Research site: pattern, process, and response to global change. Ecological Monographs, 2020, 90, e01423.	5.4	67
60	Changes in photosynthesis and soil moisture drive the seasonal soil respiration-temperature hysteresis relationship. Agricultural and Forest Meteorology, 2018, 259, 184-195.	4.8	65
61	Amino acid cycling in three cold-temperate forests of the northeastern USA. Soil Biology and Biochemistry, 2006, 38, 861-869.	8.8	63
62	FOREST LITTER PRODUCTION, CHEMISTRY, AND DECOMPOSITION FOLLOWING TWO YEARS OF FREE-AIR CO2ENRICHMENT. Ecology, 2001, 82, 470-484.	3.2	62
63	A bigâ€microsite framework for soil carbon modeling. Global Change Biology, 2014, 20, 3610-3620.	9.5	60
64	Species control variation in litter decomposition in a pine forest exposed to elevated CO2. Global Change Biology, 2002, 8, 1217-1229.	9.5	58
65	Soil?Nitrogen Cycling in a Pine Forest Exposed to 5 Years of Elevated Carbon Dioxide. Ecosystems, 2003, 6, 444-456.	3.4	57
66	Differential effects of sugar maple, red oak, and hemlock tannins on carbon and nitrogen cycling in temperate forest soils. Oecologia, 2008, 155, 583-592.	2.0	55
67	Deep peat warming increases surface methane and carbon dioxide emissions in a black spruceâ€dominated ombrotrophic bog. Global Change Biology, 2017, 23, 5398-5411.	9.5	52
68	Greater seed production in elevated CO₂ is not accompanied by reduced seed quality in <i>Pinus taeda</i> L.. Global Change Biology, 2010, 16, 1046-1056.	9.5	50
69	Contrasting effects of winter snowpack and soil frost on growing season microbial biomass and enzyme activity in two mixed-hardwood forests. Biogeochemistry, 2016, 128, 141-154.	3.5	49
70	CANOPY TREEâ€"SOIL INTERACTIONS WITHIN TEMPERATE FORESTS: SPECIES EFFECTS ON pH AND CATIONS. , 1998, 8, 447-454.		47
71	Seasonal variation in the temperature sensitivity of proteolytic enzyme activity in temperate forest soils. Journal of Geophysical Research, 2012, 117, .	3.3	46
72	Research frontiers in the analysis of coupled biogeochemical cycles. Frontiers in Ecology and the Environment, 2011, 9, 74-80.	4.0	42

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73	Canopy Tree-Soil Interactions within Temperate Forests: Species Effects on pH and Cations. , 1998, 8, 447.		40
74	Sources of increased N uptake in forest trees growing under elevated CO2: results of a large-scale 15N study. Global Change Biology, 2011, 17, 3338-3350.	9.5	40
75	Fungal functioning in a pine forest: evidence from a ¹⁵<scp>N</scp>â€labeled global change experiment. New Phytologist, 2014, 201, 1431-1439.	7.3	37
76	ATMOSPHERIC DEPOSITION MAY AFFECT NORTHERN HARDWOOD FOREST COMPOSITION BY ALTERING SOIL NUTRIENT SUPPLY. Ecological Applications, 2007, 17, 1929-1941.	3.8	36
77	A parsimonious modular approach to building a mechanistic belowground carbon and nitrogen model. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2418-2434.	3.0	36
78	Terrestrial nitrogen cycling in Earth system models revisited. New Phytologist, 2016, 210, 1165-1168.	7.3	35
79	Reduced snow cover alters rootâ€microbe interactions and decreases nitrification rates in a northern hardwood forest. Ecology, 2016, 97, 3359-3368.	3.2	34
80	Seasonality and partitioning of root allocation to rhizosphere soils in a midlatitude forest. Ecosphere, 2016, 7, e01547.	2.2	33
81	Field and remotely sensed measures of soil and vegetation carbon and nitrogen across an urbanization gradient in the Boston metropolitan area. Urban Ecosystems, 2013, 16, 593-616.	2.4	32
82	Inverse analysis of coupled carbonâ€"nitrogen cycles against multiple datasets at ambient and elevated CO₂. Journal of Plant Ecology, 2016, 9, 285-295.	2.3	28
83	Trenching reduces soil heterotrophic activity in a loblolly pine (Pinus taeda) forest exposed to elevated atmospheric [CO 2] and N fertilization. Agricultural and Forest Meteorology, 2012, 165, 43-52.	4.8	27
84	Seasonal plasticity in the temperature sensitivity of microbial activity in three temperate forest soils. Ecosphere, 2013, 4, 1-21.	2.2	24
85	Net primary production and soil respiration in New England hemlock forests affected by the hemlock woolly adelgid. Ecosphere, 2014, 5, 1-16.	2.2	24
86	Canopy N and P dynamics of a southeastern US pine forest under elevated CO2. Biogeochemistry, 2004, 69, 363-378.	3.5	22
87	Plant regulation of microbial enzyme production in situ. Soil Biology and Biochemistry, 2011, 43, 2457-2460.	8.8	21
88	A review of microplastic impacts on seagrasses, epiphytes, and associated sediment communities. Environmental Pollution, 2022, 303, 119108.	7.5	21
89	Correction factors for dissolved organic carbon extracted from soil, measured using the Mn(III)-pyrophosphate colorimetric method adapted for a microplate reader. Soil Biology and Biochemistry, 2014, 78, 284-287.	8.8	20
90	Does elevated CO2 alter silica uptake in trees?. Frontiers in Plant Science, 2014, 5, 793.	3.6	20

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91	Hemlock loss due to the hemlock woolly adelgid does not affect ecosystem C storage but alters its distribution. Ecosphere, 2013, 4, 1-16.	2.2	19
92	Fungal carbon sources in a pine forest: evidence from a 13C-labeled global change experiment. Fungal Ecology, 2014, 10, 91-100.	1.6	17
93	Canopy Tree-Soil Interactions within Temperate Forests: Species Effects on Soil Carbon and Nitrogen. , 1998, 8, 440.		16
94	Increased mercury in forest soils under elevated carbon dioxide. Oecologia, 2008, 158, 343-354.	2.0	16
95	Multi-criteria evaluation of the suitability of growth functions for modeling remotely sensed phenology. Ecological Modelling, 2016, 323, 123-132.	2.5	16
96	Bottom-up rather than top-down processes regulate the abundance and activity of nitrogen fixing plants in two Connecticut old-field ecosystems. Biogeochemistry, 2009, 95, 309-321.	3.5	12
97	An Integrative Model for Soil Biogeochemistry and Methane Processes: I. Model Structure and Sensitivity Analysis. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2019JG005468.	3.0	11
98	Roots Mediate the Effects of Snowpack Decline on Soil Bacteria, Fungi, and Nitrogen Cycling in a Northern Hardwood Forest. Frontiers in Microbiology, 2019, 10, 926.	3.5	9
99	Ectomycorrhizal fungi are associated with reduced nitrogen cycling rates in temperate forest soils without corresponding trends in bacterial functional groups. Oecologia, 2021, 196, 863-875.	2.0	9
100	Reprint of â€œPlant regulation of microbial enzyme production in situâ€• Soil Biology and Biochemistry, 2013, 56, 49-52.	8.8	5
101	Improving biogeochemical knowledge through technological innovation. Frontiers in Ecology and the Environment, 2011, 9, 37-43.	4.0	4
102	CANOPY TREEâ€“SOIL INTERACTIONS WITHIN TEMPERATE FORESTS: SPECIES EFFECTS ON SOIL CARBON AND NITROGEN. , 1998, 8, 440.		1
103	Identifying Data Needed to Reduce Parameter Uncertainty in a Coupled Microbial Soil C and N Decomposition Model. Journal of Geophysical Research G: Biogeosciences, 2021, 126, .	3.0	0