

Eric A Davidson

List of Publications by Citations

Source: <https://exaly.com/author-pdf/6475345/eric-a-davidson-publications-by-citations.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

217
papers

34,817
citations

92
h-index

186
g-index

248
ext. papers

39,179
ext. citations

9.7
avg, IF

7.37
L-index

#	Paper	IF	Citations
217	Temperature sensitivity of soil carbon decomposition and feedbacks to climate change. <i>Nature</i> , 2006 , 440, 165-73	50.4	4106
216	Global assessment of nitrogen deposition effects on terrestrial plant diversity: a synthesis 2010 , 20, 30-59		1624
215	Soil water content and temperature as independent or confounded factors controlling soil respiration in a temperate mixed hardwood forest. <i>Global Change Biology</i> , 1998 , 4, 217-227	11.4	1427
214	The role of deep roots in the hydrological and carbon cycles of Amazonian forests and pastures. <i>Nature</i> , 1994 , 372, 666-669	50.4	1085
213	Managing nitrogen for sustainable development. <i>Nature</i> , 2015 , 528, 51-9	50.4	971
212	On the variability of respiration in terrestrial ecosystems: moving beyond Q10. <i>Global Change Biology</i> , 2006 , 12, 154-164	11.4	889
211	Temperature and soil organic matter decomposition rates: Synthesis of current knowledge and a way forward. <i>Global Change Biology</i> , 2011 , 17, 3392-3404	11.4	883
210	The Amazon basin in transition. <i>Nature</i> , 2012 , 481, 321-8	50.4	729
209	Positive feedbacks in the fire dynamic of closed canopy tropical forests. <i>Science</i> , 1999 , 284, 1832-5	33.3	712
208	The contribution of manure and fertilizer nitrogen to atmospheric nitrous oxide since 1860. <i>Nature Geoscience</i> , 2009 , 2, 659-662	18.3	671
207	Changes in soil carbon inventories following cultivation of previously untilled soils. <i>Biogeochemistry</i> , 1993 , 20, 161-193	3.8	663
206	Testing a Conceptual Model of Soil Emissions of Nitrous and Nitric Oxides. <i>BioScience</i> , 2000 , 50, 667	5.7	612
205	Effects of soil water content on soil respiration in forests and cattle pastures of eastern Amazonia. <i>Biogeochemistry</i> , 2000 , 48, 53-69	3.8	588
204	Global agriculture and nitrous oxide emissions. <i>Nature Climate Change</i> , 2012 , 2, 410-416	21.4	542
203	Minimizing artifacts and biases in chamber-based measurements of soil respiration. <i>Agricultural and Forest Meteorology</i> , 2002 , 113, 21-37	5.8	541
202	Satellite-based modeling of gross primary production in an evergreen needleleaf forest. <i>Remote Sensing of Environment</i> , 2004 , 89, 519-534	13.2	525
201	Abrupt increases in Amazonian tree mortality due to drought-fire interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 6347-52	11.5	438

200	Soil carbon cycling in a temperate forest: radiocarbon-based estimates of residence times, sequestration rates and partitioning of fluxes. <i>Biogeochemistry</i> , 2000 , 51, 33-69	3.8	425
199	Measuring gross nitrogen mineralization, and nitrification by 15 N isotopic pool dilution in intact soil cores. <i>Journal of Soil Science</i> , 1991 , 42, 335-349		425
198	Processes Regulating Soil Emissions of NO and N ² O in a Seasonally Dry Tropical Forest. <i>Ecology</i> , 1993 , 74, 130-139	4.6	350
197	Chronic nitrogen additions reduce total soil respiration and microbial respiration in temperate forest soils at the Harvard Forest. <i>Forest Ecology and Management</i> , 2004 , 196, 43-56	3.9	349
196	Belowground cycling of carbon in forests and pastures of eastern Amazonia. <i>Global Biogeochemical Cycles</i> , 1995 , 9, 515-528	5.9	348
195	A global inventory of nitric oxide emissions from soils 1997 , 48, 37-50		335
194	Soil warming and organic carbon content. <i>Nature</i> , 2000 , 408, 789-90	50.4	328
193	Recuperation of nitrogen cycling in Amazonian forests following agricultural abandonment. <i>Nature</i> , 2007 , 447, 995-8	50.4	321
192	Internal Cycling of Nitrate in Soils of a Mature Coniferous Forest. <i>Ecology</i> , 1992 , 73, 1148-1156	4.6	310
191	Sources of Nitric Oxide and Nitrous Oxide following Wetting of Dry Soil. <i>Soil Science Society of America Journal</i> , 1992 , 56, 95-102	2.5	304
190	Spatial and temporal variability in forest-atmosphere CO ₂ exchange. <i>Global Change Biology</i> , 2004 , 10, 1689-1706	11.4	289
189	The Dual Arrhenius and Michaelis-Menten kinetics model for decomposition of soil organic matter at hourly to seasonal time scales. <i>Global Change Biology</i> , 2012 , 18, 371-384	11.4	275
188	A comprehensive quantification of global nitrous oxide sources and sinks. <i>Nature</i> , 2020 , 586, 248-256	50.4	270
187	The effects of partial throughfall exclusion on canopy processes, aboveground production, and biogeochemistry of an Amazon forest. <i>Journal of Geophysical Research</i> , 2002 , 107, LBA 53-1		267
186	Process modeling of controls on nitrogen trace gas emissions from soils worldwide. <i>Journal of Geophysical Research</i> , 1996 , 101, 1361-1377		260
185	Toward more realistic projections of soil carbon dynamics by Earth system models. <i>Global Biogeochemical Cycles</i> , 2016 , 30, 40-56	5.9	251
184	Drought effects on litterfall, wood production and belowground carbon cycling in an Amazon forest: results of a throughfall reduction experiment. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2008 , 363, 1839-48	5.8	251
183	Seasonal patterns and environmental control of carbon dioxide and water vapour exchange in an ecotonal boreal forest. <i>Global Change Biology</i> , 1999 , 5, 891-902	11.4	242

182	A mechanism of abiotic immobilization of nitrate in forest ecosystems: the ferrous wheel hypothesis. <i>Global Change Biology</i> , 2003 , 9, 228-236	11.4	241
181	Land use change and biogeochemical controls of nitrogen oxide emissions from soils in eastern Amazonia. <i>Global Biogeochemical Cycles</i> , 1999 , 13, 31-46	5.9	235
180	Belowground carbon allocation in forests estimated from litterfall and IRGA-based soil respiration measurements. <i>Agricultural and Forest Meteorology</i> , 2002 , 113, 39-51	5.8	224
179	The age of fine-root carbon in three forests of the eastern United States measured by radiocarbon. <i>Oecologia</i> , 2001 , 129, 420-429	2.9	217
178	NITROGEN AND PHOSPHORUS LIMITATION OF BIOMASS GROWTH IN A TROPICAL SECONDARY FOREST 2004 , 14, 150-163		214
177	Effects of experimental drought on soil respiration and radiocarbon efflux from a temperate forest soil. <i>Global Change Biology</i> , 2006 , 12, 177-193	11.4	209
176	Deep root function in soil water dynamics in cerrado savannas of central Brazil. <i>Functional Ecology</i> , 2005 , 19, 574-581	5.6	208
175	Effects of an experimental drought on soil emissions of carbon dioxide, methane, nitrous oxide, and nitric oxide in a moist tropical forest. <i>Global Change Biology</i> , 2004 , 10, 718-730	11.4	207
174	Explicitly representing soil microbial processes in Earth system models. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 1782-1800	5.9	197
173	Interannual variation of soil respiration in two New England forests. <i>Global Biogeochemical Cycles</i> , 2001 , 15, 337-350	5.9	190
172	Land-Use Change and Biogeochemical Controls of Methane Fluxes in Soils of Eastern Amazonia. <i>Ecosystems</i> , 2000 , 3, 41-56	3.9	188
171	Missing sinks, feedbacks, and understanding the role of terrestrial ecosystems in the global carbon balance. <i>Global Biogeochemical Cycles</i> , 1998 , 12, 25-34	5.9	187
170	Sensitivity of decomposition rates of soil organic matter with respect to simultaneous changes in temperature and moisture. <i>Journal of Advances in Modeling Earth Systems</i> , 2015 , 7, 335-356	7.1	178
169	Inventories and scenarios of nitrous oxide emissions. <i>Environmental Research Letters</i> , 2014 , 9, 105012	6.2	178
168	Drying and Wetting Effects on Carbon Dioxide Release from Organic Horizons. <i>Soil Science Society of America Journal</i> , 2003 , 67, 1888-1896	2.5	177
167	A comparison of manual and automated systems for soil CO ₂ flux measurements: trade-offs between spatial and temporal resolution. <i>Journal of Experimental Botany</i> , 2003 , 54, 891-9	7	168
166	Nitrogen Mineralization, Immobilization, and Nitrification. <i>Soil Science Society of America Book Series</i> , 2018 , 985-1018		159
165	Key ecological responses to nitrogen are altered by climate change. <i>Nature Climate Change</i> , 2016 , 6, 836-843	21.4	159

164	Distinguishing between Nitrification and Denitrification as Sources of Gaseous Nitrogen Production in Soil. <i>Applied and Environmental Microbiology</i> , 1986 , 52, 1280-6	4.8	153
163	A distinct seasonal pattern of the ratio of soil respiration to total ecosystem respiration in a spruce-dominated forest. <i>Global Change Biology</i> , 2006 , 12, 230-239	11.4	151
162	Stoichiometric patterns in foliar nutrient resorption across multiple scales. <i>New Phytologist</i> , 2012 , 196, 173-180	9.8	150
161	Seasonality of temperate forest photosynthesis and daytime respiration. <i>Nature</i> , 2016 , 534, 680-3	50.4	147
160	Soil moisture depletion under simulated drought in the Amazon: impacts on deep root uptake. <i>New Phytologist</i> , 2010 , 187, 592-607	9.8	145
159	Coordinated approaches to quantify long-term ecosystem dynamics in response to global change. <i>Global Change Biology</i> , 2011 , 17, 843-854	11.4	144
158	Testing the Hole-in-the-Pipe Model of nitric and nitrous oxide emissions from soils using the TRAGNET Database. <i>Global Biogeochemical Cycles</i> , 2000 , 14, 1035-1043	5.9	144
157	Classifying successional forests using Landsat spectral properties and ecological characteristics in eastern Amazonia. <i>Remote Sensing of Environment</i> , 2003 , 87, 470-481	13.2	141
156	Site and temporal variation of soil respiration in European beech, Norway spruce, and Scots pine forests. <i>Global Change Biology</i> , 2002 , 8, 1205-1216	11.4	140
155	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1995 , 47, 550-565	3.3	138
154	The potential ecological costs and cobenefits of REDD: a critical review and case study from the Amazon region. <i>Global Change Biology</i> , 2009 , 15, 2803-2824	11.4	136
153	Using model-data fusion to interpret past trends, and quantify uncertainties in future projections, of terrestrial ecosystem carbon cycling. <i>Global Change Biology</i> , 2012 , 18, 2555-2569	11.4	135
152	Rapid abiotic transformation of nitrate in an acid forest soil. <i>Biogeochemistry</i> , 2001 , 54, 131-146	3.8	131
151	Soil emissions of nitric oxide in a seasonally dry tropical forest of Mexico. <i>Journal of Geophysical Research</i> , 1991 , 96, 15439		130
150	Estimating parameters of a forest ecosystem C model with measurements of stocks and fluxes as joint constraints. <i>Oecologia</i> , 2010 , 164, 25-40	2.9	129
149	Carbon dioxide and nitrogenous gases in the soil atmosphere. <i>Journal of Geochemical Exploration</i> , 1990 , 38, 13-41	3.8	125
148	Environmental Parameters Regulating Gaseous Nitrogen Losses from Two Forested Ecosystems via Nitrification and Denitrification. <i>Applied and Environmental Microbiology</i> , 1986 , 52, 1287-92	4.8	125
147	Nitrogen Oxide Fluxes and Nitrogen Cycling during Postagricultural Succession and Forest Fertilization in the Humid Tropics. <i>Ecosystems</i> , 2001 , 4, 67-84	3.9	121

146	Gas diffusivity and production of CO ₂ in deep soils of the eastern Amazon. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1995 , 47, 550-565	3.3	120
145	Vertical partitioning of CO ₂ production within a temperate forest soil. <i>Global Change Biology</i> , 2006 , 12, 944-956	11.4	119
144	Effects of an experimental drought and recovery on soil emissions of carbon dioxide, methane, nitrous oxide, and nitric oxide in a moist tropical forest. <i>Global Change Biology</i> , 2008 , 14, 2582-2590	11.4	117
143	Effect of summer throughfall exclusion, summer drought, and winter snow cover on methane fluxes in a temperate forest soil. <i>Soil Biology and Biochemistry</i> , 2006 , 38, 1388-1395	7.5	115
142	Control of cation concentrations in stream waters by surface soil processes in an Amazonian watershed. <i>Nature</i> , 2001 , 410, 802-5	50.4	115
141	ECOLOGICAL RESEARCH IN THE LARGE-SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN AMAZONIA: EARLY RESULTS 2004 , 14, 3-16		113
140	Soil Water Content and the Ratio of Nitrous Oxide to Nitric Oxide Emitted from Soil 1993 , 369-386		112
139	Global soil nitrous oxide emissions since the preindustrial era estimated by an ensemble of terrestrial biosphere models: Magnitude, attribution, and uncertainty. <i>Global Change Biology</i> , 2019 , 25, 640-659	11.4	111
138	Changes in Canopy Processes Following Whole-Forest Canopy Nitrogen Fertilization of a Mature Spruce-Hemlock Forest. <i>Ecosystems</i> , 2007 , 10, 1133-1147	3.9	110
137	Comparing simple respiration models for eddy flux and dynamic chamber data. <i>Agricultural and Forest Meteorology</i> , 2006 , 141, 219-234	5.8	110
136	NUTRIENT LOSS AND REDISTRIBUTION AFTER FOREST CLEARING ON A HIGHLY WEATHERED SOIL IN AMAZONIA 2004 , 14, 177-199		110
135	Isotopic variability of N ₂ O emissions from tropical forest soils. <i>Global Biogeochemical Cycles</i> , 2000 , 14, 525-535	5.9	108
134	Acceleration of global N ₂ O emissions seen from two decades of atmospheric inversion. <i>Nature Climate Change</i> , 2019 , 9, 993-998	21.4	106
133	Climate change impacts of US reactive nitrogen. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 7671-5	11.5	102
132	Short-term soil respiration and nitrogen immobilization response to nitrogen applications in control and nitrogen-enriched temperate forests. <i>Forest Ecology and Management</i> , 2004 , 196, 57-70	3.9	100
131	Assessing available carbon: Comparison of techniques across selected forest soils. <i>Communications in Soil Science and Plant Analysis</i> , 1987 , 18, 45-64	1.5	100
130	INFLUENCE OF LEAF-CUTTING ANT NESTS ON SECONDARY FOREST GROWTH AND SOIL PROPERTIES IN AMAZONIA. <i>Ecology</i> , 2003 , 84, 1265-1276	4.6	98
129	Legacy of fire slows carbon accumulation in Amazonian forest regrowth. <i>Frontiers in Ecology and the Environment</i> , 2005 , 3, 365-369	5.5	97

128	Soil Carbon stocks and their rates of accumulation and loss in a boreal forest landscape. <i>Global Biogeochemical Cycles</i> , 1998 , 12, 687-701	5.9	97
127	The enigma of progress in denitrification research 2006 , 16, 2057-63		95
126	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes. <i>Biogeosciences</i> , 2010 , 7, 2147-2157	4.6	87
125	More food, low pollution (mo fo lo Po): a grand challenge for the 21st century. <i>Journal of Environmental Quality</i> , 2015 , 44, 305-11	3.4	86
124	The Millennial model: in search of measurable pools and transformations for modeling soil carbon in the new century. <i>Biogeochemistry</i> , 2018 , 137, 51-71	3.8	85
123	Diel patterns of autotrophic and heterotrophic respiration among phenological stages. <i>Global Change Biology</i> , 2013 , 19, 1151-9	11.4	85
122	Direct extraction of microbial biomass nitrogen from forest and grassland soils of california. <i>Soil Biology and Biochemistry</i> , 1989 , 21, 773-778	7.5	84
121	Biotic Feedbacks in the Warming of the Earth. <i>Climatic Change</i> , 1998 , 40, 495-518	4.5	83
120	A conceptual and practical approach to data quality and analysis procedures for high-frequency soil respiration measurements. <i>Functional Ecology</i> , 2008 , 22, 1000-1007	5.6	83
119	An integrated greenhouse gas assessment of an alternative to slash-and-burn agriculture in eastern Amazonia. <i>Global Change Biology</i> , 2008 , 14, 998-1007	11.4	81
118	Regional application of an ecosystem production model for studies of biogeochemistry in Brazilian Amazonia. <i>Global Change Biology</i> , 1998 , 4, 315-333	11.4	80
117	The role of nitrogen in climate change and the impacts of nitrogen-climate interactions in the United States: foreword to thematic issue. <i>Biogeochemistry</i> , 2013 , 114, 1-10	3.8	79
116	Soil carbon dynamics in regrowing forest of eastern Amazonia. <i>Global Change Biology</i> , 1999 , 5, 693-702	11.4	76
115	High temporal frequency measurements of greenhouse gas emissions from soils. <i>Biogeosciences</i> , 2014 , 11, 2709-2720	4.6	74
114	CO2 flux from soil in pastures and forests in southwestern Amazonia. <i>Global Change Biology</i> , 2004 , 10, 833-843	11.4	72
113	Globally significant changes in biological processes of the Amazon Basin: results of the Large-scale Biosphere-Atmosphere Experiment. <i>Global Change Biology</i> , 2004 , 10, 519-529	11.4	72
112	Three scales of temporal resolution from automated soil respiration measurements. <i>Agricultural and Forest Meteorology</i> , 2009 , 149, 2012-2021	5.8	68
111	The Susceptibility of Southeastern Amazon Forests to Fire: Insights from a Large-Scale Burn Experiment. <i>BioScience</i> , 2015 , 65, 893-905	5.7	66

110	Moisture and substrate availability constrain soil trace gas fluxes in an eastern Amazonian regrowth forest. <i>Global Biogeochemical Cycles</i> , 2004 , 18, n/a-n/a	5.9	66
109	Rate my data: quantifying the value of ecological data for the development of models of the terrestrial carbon cycle 2013 , 23, 273-86		63
108	Distribution of nitrogen-15 tracers applied to the canopy of a mature spruce-hemlock stand, Howland, Maine, USA. <i>Oecologia</i> , 2009 , 160, 589-99	2.9	62
107	Former land-use and tree species affect nitrogen oxide emissions from a tropical dry forest. <i>Oecologia</i> , 2002 , 130, 297-308	2.9	62
106	Estimating regional carbon stocks and spatially covarying edaphic factors using soil maps at three scales. <i>Biogeochemistry</i> , 1993 , 22, 107-131	3.8	62
105	A world of co-benefits: Solving the global nitrogen challenge. <i>Earth's Future</i> , 2019 , 7, 1-8	7.9	61
104	Soil respiration in a northeastern US temperate forest: a 22-year synthesis. <i>Ecosphere</i> , 2013 , 4, art140	3.1	61
103	Watershed responses to Amazon soya bean cropland expansion and intensification. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20120425	5.8	55
102	Foundation species loss affects vegetation structure more than ecosystem function in a northeastern USA forest. <i>PeerJ</i> , 2013 , 1, e41	3.1	53
101	Nitrogen and phosphorus additions negatively affect tree species diversity in tropical forest regrowth trajectories. <i>Ecology</i> , 2010 , 91, 2121-31	4.6	50
100	A big-microsite framework for soil carbon modeling. <i>Global Change Biology</i> , 2014 , 20, 3610-20	11.4	46
99	Using O ₂ to study the relationships between soil CO ₂ efflux and soil respiration. <i>Biogeosciences</i> , 2015 , 12, 2089-2099	4.6	45
98	Sources of nitrous oxide production following wetting of dry soil. <i>FEMS Microbiology Ecology</i> , 1991 , 8, 117-124	4.3	45
97	Representative concentration pathways and mitigation scenarios for nitrous oxide. <i>Environmental Research Letters</i> , 2012 , 7, 024005	6.2	43
96	Soil nitrogen cycling and nitrogen oxide emissions along a pasture chronosequence in the humid tropics of Costa Rica. <i>Soil Biology and Biochemistry</i> , 1999 , 31, 387-394	7.5	42
95	Impacts of human alteration of the nitrogen cycle in the US on radiative forcing. <i>Biogeochemistry</i> , 2013 , 114, 25-40	3.8	41
94	Pasture soils as carbon sink. <i>Nature</i> , 1995 , 376, 472-473	50.4	41
93	Spatial variation in vegetation structure coupled to plant available water determined by two-dimensional soil resistivity profiling in a Brazilian savanna. <i>Oecologia</i> , 2007 , 153, 417-30	2.9	40

92	Spatial covariation of soil organic carbon, clay content, and drainage class at a regional scale. <i>Landscape Ecology</i> , 1995 , 10, 349-362	4.3	40
91	Measurement of Nitrous Oxide Dissolved in Soil Solution. <i>Soil Science Society of America Journal</i> , 1988 , 52, 1201-1203	2.5	40
90	Quantifying Nutrient Budgets for Sustainable Nutrient Management. <i>Global Biogeochemical Cycles</i> , 2020 , 34, e2018GB006060	5.9	39
89	Roads as nitrogen deposition hot spots. <i>Biogeochemistry</i> , 2013 , 114, 149-163	3.8	39
88	Long-term changes in forest carbon under temperature and nitrogen amendments in a temperate northern hardwood forest. <i>Global Change Biology</i> , 2013 , 19, 2389-400	11.4	37
87	Phosphorus cycling in a small watershed in the Brazilian Cerrado: impacts of frequent burning. <i>Biogeochemistry</i> , 2011 , 105, 105-118	3.8	37
86	Unexpected results of a pilot throughfall exclusion experiment on soil emissions of CO ₂ , CH ₄ , N ₂ O, and NO in eastern Amazonia. <i>Biology and Fertility of Soils</i> , 2002 , 36, 102-108	6.1	37
85	Nitrous Oxide Emission Controls and Inorganic Nitrogen Dynamics in Fertilized Tropical Agricultural Soils. <i>Soil Science Society of America Journal</i> , 1996 , 60, 1145-1152	2.5	37
84	Deep soils modify environmental consequences of increased nitrogen fertilizer use in intensifying Amazon agriculture. <i>Scientific Reports</i> , 2018 , 8, 13478	4.9	37
83	The economic and environmental consequences of implementing nitrogen-efficient technologies and management practices in agriculture. <i>Journal of Environmental Quality</i> , 2015 , 44, 312-24	3.4	35
82	Leaf-cutting ant (<i>Atta Sexdens</i>) and nutrient cycling: deep soil inorganic nitrogen stocks, mineralization, and nitrification in Eastern Amazonia. <i>Soil Biology and Biochemistry</i> , 2003 , 35, 1219-1222	7.5	35
81	Ecosystem modeling and dynamic effects of deforestation on trace gas fluxes in Amazon tropical forests. <i>Forest Ecology and Management</i> , 2001 , 152, 97-117	3.9	35
80	Land-use effects on the chemical attributes of low-order streams in the eastern Amazon. <i>Journal of Geophysical Research</i> , 2010 , 115,		34
79	Soil Carbon Dynamics. <i>Geophysical Monograph Series</i> , 2009 , 429-449	1.1	34
78	Soil heterogeneity can mask the effects of ammonium availability on nitrification. <i>Soil Biology and Biochemistry</i> , 1994 , 26, 1449-1453	7.5	34
77	Nitrogen-induced terrestrial eutrophication: cascading effects and impacts on ecosystem services. <i>Ecosphere</i> , 2017 , 8, e01877	3.1	32
76	Dissolved CO ₂ in small catchment streams of eastern Amazonia: A minor pathway of terrestrial carbon loss. <i>Journal of Geophysical Research</i> , 2010 , 115,		32
75	Iron interference in the quantification of nitrate in soil extracts and its effect on hypothesized abiotic immobilization of nitrate. <i>Biogeochemistry</i> , 2008 , 90, 65-73	3.8	31

74	Endogenous circadian regulation of carbon dioxide exchange in terrestrial ecosystems. <i>Global Change Biology</i> , 2012 , 18, 1956-1970	11.4	30
73	Nitrogen in Runoff from Residential Roads in a Coastal Area. <i>Water, Air, and Soil Pollution</i> , 2010 , 210, 3-13	2.6	30
72	Dissolved rainfall inputs and streamwater outputs in an undisturbed watershed on highly weathered soils in the Brazilian cerrado. <i>Hydrological Processes</i> , 2006 , 20, 2615-2639	3.3	29
71	Contribution of soil respiration in tropical, temperate, and boreal forests to the 18O enrichment of atmospheric O ₂ . <i>Global Biogeochemical Cycles</i> , 2003 , 17, n/a-n/a	5.9	29
70	Prolonged tropical forest degradation due to compounding disturbances: Implications for CO and H ₂ O fluxes. <i>Global Change Biology</i> , 2019 , 25, 2855-2868	11.4	27
69	Merging a mechanistic enzymatic model of soil heterotrophic respiration into an ecosystem model in two AmeriFlux sites of northeastern USA. <i>Agricultural and Forest Meteorology</i> , 2018 , 252, 155-166	5.8	27
68	Modeling the effects of throughfall reduction on soil water content in a Brazilian Oxisol under a moist tropical forest. <i>Water Resources Research</i> , 2007 , 43,	5.4	27
67	Interactions between repeated fire, nutrients, and insect herbivores affect the recovery of diversity in the southern Amazon. <i>Oecologia</i> , 2013 , 172, 219-29	2.9	26
66	Carbon budget of the Harvard Forest Long-Term Ecological Research site: pattern, process, and response to global change. <i>Ecological Monographs</i> , 2020 , 90, e01423	9	26
65	A parsimonious modular approach to building a mechanistic belowground carbon and nitrogen model. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017 , 122, 2418-2434	3.7	25
64	Emissions of nitrous oxide and nitric oxide from soils of native and exotic ecosystems of the Amazon and Cerrado regions of Brazil. <i>Scientific World Journal, The</i> , 2001 , 1 Suppl 2, 312-9	2.2	25
63	New approaches to modeling denitrification. <i>Biogeochemistry</i> , 2009 , 93, 1-5	3.8	24
62	Fluxes of CH ₄ , CO ₂ , NO, and N ₂ O in an improved fallow agroforestry system in eastern Amazonia. <i>Agriculture, Ecosystems and Environment</i> , 2008 , 126, 113-121	5.7	24
61	MODEL ESTIMATES OF REGIONAL NITRIC OXIDE EMISSIONS FROM SOILS OF THE SOUTHEASTERN UNITED STATES 1998 , 8, 748-759		24
60	Evaluation of the Most Probable Number Method for Enumerating Denitrifying Bacteria. <i>Soil Science Society of America Journal</i> , 1985 , 49, 642-645	2.5	24
59	Constrained partitioning of autotrophic and heterotrophic respiration reduces model uncertainties of forest ecosystem carbon fluxes but not stocks. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016 , 121, 2476-2492	3.7	23
58	Nutrients in the nexus. <i>Journal of Environmental Studies and Sciences</i> , 2016 , 6, 25-38	0.9	22
57	N-related greenhouse gases in North America: innovations for a sustainable future. <i>Current Opinion in Environmental Sustainability</i> , 2014 , 9-10, 1-8	7.2	22

56	Changes in Carbon Storage and Net Carbon Exchange One Year After an Initial Shelterwood Harvest at Howland Forest, ME. <i>Environmental Management</i> , 2004 , 33, S9	3.1	22
55	COSORE: A community database for continuous soil respiration and other soil-atmosphere greenhouse gas flux data. <i>Global Change Biology</i> , 2020 , 26, 7268-7283	11.4	22
54	Predicting decadal trends and transient responses of radiocarbon storage and fluxes in a temperate forest soil. <i>Biogeosciences</i> , 2012 , 9, 3013-3028	4.6	21
53	Partitioning soil respiration: quantifying the artifacts of the trenching method. <i>Biogeochemistry</i> , 2018 , 140, 53-63	3.8	20
52	Loss of Nutrients from Terrestrial Ecosystems to Streams and the Atmosphere Following Land Use Change in Amazonia. <i>Geophysical Monograph Series</i> , 2004 , 147-158	1.1	20
51	Is Temporal Variation of Soil Respiration Linked to the Phenology of Photosynthesis? 2009 , 187-199		19
50	Quantification of global and national nitrogen budgets for crop production. <i>Nature Food</i> ,	14.4	19
49	Estimating Seasonal Changes in Volumetric Soil Water Content at Landscape Scales in a Savanna Ecosystem Using Two-Dimensional Resistivity Profiling. <i>Earth Interactions</i> , 2008 , 12, 1-25	1.5	18
48	Oligotrophic <i>Tillandsia circinnata</i> Schlecht (Bromeliaceae): An Assessment of Its Patterns of Mineral Allocation and Reproduction. <i>American Journal of Botany</i> , 1979 , 66, 386	2.7	18
47	Processes for Production and Consumption of Gaseous Nitrogen Oxides in Soil. <i>ASA Special Publication</i> , 2015 , 79-93	1.1	16
46	Objective indicators of pasture degradation from spectral mixture analysis of Landsat imagery. <i>Journal of Geophysical Research</i> , 2008 , 113, n/a-n/a		16
45	Six years of ecosystem-atmosphere greenhouse gas fluxes measured in a sub-boreal forest. <i>Scientific Data</i> , 2019 , 6, 117	8.2	15
44	Equivalent water thickness in savanna ecosystems: MODIS estimates based on ground and EO-1 Hyperion data. <i>International Journal of Remote Sensing</i> , 2011 , 32, 7423-7440	3.1	15
43	Abiotic immobilization of nitrate in two soils of relic <i>Abies pinsapo</i> -fir forests under Mediterranean climate. <i>Biogeochemistry</i> , 2008 , 91, 1-11	3.8	15
42	Effects of varying salinity on phytoplankton growth in a low-salinity coastal pond under two nutrient conditions. <i>Biological Bulletin</i> , 2002 , 203, 260-1	1.5	15
41	Soil Carbon Dynamics in Soybean Cropland and Forests in Mato Grosso, Brazil. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018 , 123, 18-31	3.7	14
40	Nonfrontier Deforestation in the Eastern Amazon. <i>Earth Interactions</i> , 2010 , 14, 1-15	1.5	12
39	Quantifying On-Farm Nitrous Oxide Emission Reductions in Food Supply Chains. <i>Earth's Future</i> , 2020 , 8, e2020EF001504	7.9	11

38	Simultaneous numerical representation of soil microsite production and consumption of carbon dioxide, methane, and nitrous oxide using probability distribution functions. <i>Global Change Biology</i> , 2020 , 26, 200-218	11.4	11
37	Biogeochemical recuperation of lowland tropical forest during succession. <i>Ecology</i> , 2019 , 100, e02641	4.6	10
36	Nitrogen Fixation Inputs in Pasture and Early Successional Forest in the Brazilian Amazon Region: Evidence From a Claybox Mesocosm Study. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018 , 123, 712-721	3.7	10
35	Land-Water interactions in the amazon. <i>Biogeochemistry</i> , 2011 , 105, 1-5	3.8	10
34	Different quantification approaches for nitrogen use efficiency lead to divergent estimates with varying advantages. <i>Nature Food</i> , 2021 , 2, 241-245	14.4	10
33	Isotopically constrained soil carbon and nitrogen budgets in a soybean field chronosequence in the Brazilian Amazon region. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016 , 121, 2520-2529	3.7	9
32	The Effects of Drought on Amazonian Rain Forests. <i>Geophysical Monograph Series</i> , 2009 , 409-428	1.1	8
31	FOLIAR MINERAL ELEMENTS IN NATIVE PLANTS ON CONTRASTING ROCK TYPES. <i>Soil Science</i> , 1987 , 144, 190-202	0.9	8
30	Fates and Use Efficiency of Nitrogen Fertilizer in Maize Cropping Systems and Their Responses to Technologies and Management Practices: A Global Analysis on Field ¹⁵ N Tracer Studies. <i>Earth's Future</i> , 2021 , 9, e2020EF001514	7.9	8
29	Equitable Exchange: A Framework for Diversity and Inclusion in the Geosciences. <i>AGU Advances</i> , 2021 , 2, e2020AV000359	5.4	8
28	The Effects of Atmospheric Nitrogen Deposition on Terrestrial and Freshwater Biodiversity 2014 , 465-480		7
27	Soil and tree response to P fertilization in a secondary tropical forest supported by an Oxisol. <i>Biology and Fertility of Soils</i> , 2012 , 48, 665-678	6.1	7
26	Linking woody species diversity with plant available water at a landscape scale in a Brazilian savanna. <i>Journal of Vegetation Science</i> , 2009 , 20, 826-835	3.1	7
25	The Maintenance of Soil Fertility in Amazonian Managed Systems. <i>Geophysical Monograph Series</i> , 2009 , 299-309	1.1	7
24	Permafrost and wetland carbon stocks. <i>Science</i> , 2010 , 330, 1176-7; author reply 1177	33.3	6
23	CO ₂ -driven cation leaching after tropical forest clearing. <i>Journal of Geochemical Exploration</i> , 2006 , 88, 214-219	3.8	6
22	Using O ₂ and CO ₂ to study the relationships between soil CO ₂ efflux and soil respiration		6
21	Biogeochemistry: Projections of the soil-carbon deficit. <i>Nature</i> , 2016 , 540, 47-48	50.4	6

20	Modeling the impact of net primary production dynamics on post-disturbance Amazon savannization. <i>Anais Da Academia Brasileira De Ciencias</i> , 2014 , 86, 621-632	1.4	5
19	Nitrogen Deposition Effects on Ecosystem Services and Interactions with other Pollutants and Climate Change 2014 , 493-505		5
18	Nutrient Limitations to Secondary Forest Regrowth. <i>Geophysical Monograph Series</i> , 2009 , 293-297	1.1	5
17	Denitrification Across Landscapes and Waterscapes1 2006 , 16, 2055-2056		5
16	Quantitative assessment of agricultural sustainability reveals divergent priorities among nations. <i>One Earth</i> , 2021 , 4, 1262-1277	8.1	5
15	Nitrous oxide dissolved in soil solution: An insignificant pathway of nitrogen loss from a southeastern hardwood forest. <i>Water Resources Research</i> , 1990 , 26, 1687-1690	5.4	3
14	Global mapping of crop-specific emission factors highlights hotspots of nitrous oxide mitigation. <i>Nature Food</i> ,	14.4	3
13	Vertical partitioning of CO2 production within a temperate forest soil. <i>Global Change Biology</i> , 2007 , 13, 922-922	11.4	2
12	Nutrient limitation of phytoplankton growth in Vineyard Sound and Oyster Pond, Falmouth, Massachusetts. <i>Biological Bulletin</i> , 2002 , 203, 261-3	1.5	2
11	High temporal frequency measurements of greenhouse gas emissions from soils		2
10	The INI North American Regional Nitrogen Center: 2011-2015 Nitrogen Activities in North America 2020 , 489-497		1
9	Magnitude and Uncertainty of Nitrous Oxide Emissions From North America Based on Bottom-Up and Top-Down Approaches: Informing Future Research and National Inventories. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL095264	4.9	1
8	Legacy of fire slows carbon accumulation in Amazonian forest regrowth 2005 , 3, 365		1
7	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes		1
6	Predicting decadal trends and transient responses of radiocarbon storage and fluxes in a temperate forest soil		1
5	Global Nitrogen and Phosphorus Pollution 2020 , 421-431		1
4	Concurrent Measurements of Soil and Ecosystem Respiration in a Mature Eucalypt Woodland: Advantages, Lessons, and Questions. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021 , 126, e2020JG006221	3.7	1
3	The increasing global environmental consequences of a weakening US-China crop trade relationship. <i>Nature Food</i> , 2021 , 2, 578-586	14.4	1

- 2 Multi-Decadal Carbon Cycle Measurements Indicate Resistance to External Drivers of Change at the Howland Forest AmeriFlux Site. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2021JG006276 ^{3.7} 1
- 1 Effects of Drainage Water Management in a CornSoy Rotation on Soil N₂O and CH₄ Fluxes. *Nitrogen*, **2022**, 3, 128-148 1.8 1