Chris M Gough

List of Publications by Year
in descending order

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109 papers	7,969 citations	41344 49 h-index	51608 86 g-index
120 all docs	120 docs citations	120 times ranked	8434 citing authors

#	Article	IF	Citations
1	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
2	Terrestrial biosphere models need better representation of vegetation phenology: results from the <scp>N</scp>orth <scp>A</scp>merican <scp>C</scp>arbon <scp>P</scp>rogram <scp>S</scp>ite <scp>S</scp>ynthesis. Global Change Biology, 2012, 18, 566-584.	9.5	583
3	Globally rising soil heterotrophic respiration over recent decades. Nature, 2018, 560, 80-83.	27.8	360
4	A modelâ€data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	274
5	Joint control of terrestrial gross primary productivity by plant phenology and physiology. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2788-2793.	7.1	265
6	Terrestrial biosphere model performance for interâ€annual variability of landâ€atmosphere <scp><scp>CO₂</scp></scp> exchange. Global Change Biology, 2012, 18, 1971-1987.	9.5	232
7	Multi-year convergence of biometric and meteorological estimates of forest carbon storage. Agricultural and Forest Meteorology, 2008, 148, 158-170.	4.8	206
8	The role of canopy structural complexity in wood net primary production of a maturing northern deciduous forest. Ecology, 2011, 92, 1818-1827.	3.2	200
9	The legacy of harvest and fire on ecosystem carbon storage in a north temperate forest. Global Change Biology, 2007, 13, 1935-1949.	9.5	158
10	Land surface phenology derived from normalized difference vegetation index (NDVI) at global FLUXNET sites. Agricultural and Forest Meteorology, 2017, 233, 171-182.	4.8	154
11	Contrasting responses of autumn-leaf senescence to daytime and night-time warming. Nature Climate Change, 2018, 8, 1092-1096.	18.8	145
12	Interannual variability of net ecosystem productivity in forests is explained by carbon flux phenology in autumn. Global Ecology and Biogeography, 2013, 22, 994-1006.	5.8	144
13	Controls on Annual Forest Carbon Storage: Lessons from the Past and Predictions for the Future. BioScience, 2008, 58, 609-622.	4.9	140
14	Sustained carbon uptake and storage following moderate disturbance in a Great Lakes forest. Ecological Applications, 2013, 23, 1202-1215.	3.8	137
15	Maintaining high rates of carbon storage in old forests: A mechanism linking canopy structure to forest function. Forest Ecology and Management, 2013, 298, 111-119.	3.2	130
16	The contribution of nitrogen deposition to the photosynthetic capacity of forests. Global Biogeochemical Cycles, 2013, 27, 187-199.	4.9	127
17	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. Agricultural and Forest Meteorology, 2021, 301-302, 108350.	4.8	125
18	Coarse woody debris and the carbon balance of a north temperate forest. Forest Ecology and Management, 2007, 244, 60-67.	3.2	123

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19	Respiratory carbon losses and the carbonâ€use efficiency of a northern hardwood forest, 1999â€“2003. New Phytologist, 2005, 167, 437-456.	7.3	122
20	Modeling growing season phenology in North American forests using seasonal mean vegetation indices from MODIS. Remote Sensing of Environment, 2014, 147, 79-88.	11.0	118
21	Evaluating spatial and temporal patterns of MODIS GPP over the conterminous U.S. against flux measurements and a process model. Remote Sensing of Environment, 2012, 124, 717-729.	11.0	110
22	Mean annual precipitation predicts primary production resistance and resilience to extreme drought. Science of the Total Environment, 2018, 636, 360-366.	8.0	109
23	Disturbance and the resilience of coupled carbon and nitrogen cycling in a north temperate forest. Journal of Geophysical Research, 2011, 116, .	3.3	108
24	Influence of vegetation and seasonal forcing on carbon dioxide fluxes across the Upper Midwest, USA: Implications for regional scaling. Agricultural and Forest Meteorology, 2008, 148, 288-308.	4.8	106
25	The three major axes of terrestrial ecosystem function. Nature, 2021, 598, 468-472.	27.8	99
26	High rates of primary production in structurally complex forests. Ecology, 2019, 100, e02864.	3.2	96
27	Evaluation of leafâ€toâ€canopy upscaling methodologies against carbon flux data in North America. Journal of Geophysical Research, 2012, 117, .	3.3	92
28	Using FLUXNET data to improve models of springtime vegetation activity onset in forest ecosystems. Agricultural and Forest Meteorology, 2013, 171-172, 46-56.	4.8	91
29	On the relationship between sub-daily instantaneous and daily total gross primary production: Implications for interpreting satellite-based SIF retrievals. Remote Sensing of Environment, 2018, 205, 276-289.	11.0	91
30	Whole-ecosystem labile carbon production in a north temperate deciduous forest. Agricultural and Forest Meteorology, 2009, 149, 1531-1540.	4.8	80
31	The match and mismatch between photosynthesis and land surface phenology of deciduous forests. Agricultural and Forest Meteorology, 2015, 214-215, 25-38.	4.8	80
32	Forest Canopy Structural Complexity and Light Absorption Relationships at the Subcontinental Scale. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1387-1405.	3.0	79
33	Speciesâ€specific transpiration responses to intermediate disturbance in a northern hardwood forest. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 2292-2311.	3.0	76
34	Quantifying vegetation and canopy structural complexity from terrestrial Li<scp>DAR</scp> data using the <scp>forestr r</scp> package. Methods in Ecology and Evolution, 2018, 9, 2057-2066.	5.2	76
35	Forest aging, disturbance and the carbon cycle. New Phytologist, 2018, 219, 1188-1193.	7.3	75
36	Shifting conceptions of complexity in forest management and silviculture. Forest Ecology and Management, 2018, 421, 59-71.	3.2	73

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37	Short-term effects of fertilization on loblolly pine (Pinus taeda L.) physiology. Plant, Cell and Environment, 2004, 27, 876-886.	5.7	72
38	Characterizing the performance of ecosystem models across time scales: A spectral analysis of the North American Carbon Program site-level synthesis. Journal of Geophysical Research, 2011, 116, .	3.3	72
39	Characterizing the diurnal patterns of errors in the prediction of evapotranspiration by several landâ€surface models: An NACP analysis. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1458-1473.	3.0	69
40	The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx). Methods in Ecology and Evolution, 2020, 11, 22-37.	5.2	68
41	Quantifying the effect of forest age in annual net forest carbon balance. Environmental Research Letters, 2018, 13, 124018.	5.2	67
42	Interannual and spatial impacts of phenological transitions, growing season length, and spring and autumn temperatures on carbon sequestration: A North America flux data synthesis. Global and Planetary Change, 2012, 92-93, 179-190.	3.5	64
43	Wood net primary production resilience in an unmanaged forest transitioning from early to middle succession. Forest Ecology and Management, 2010, 260, 36-41.	3.2	61
44	Disturbance, complexity, and succession of net ecosystem production in North America's temperate deciduous forests. Ecosphere, 2016, 7, e01375.	2.2	60
45	The influence of environmental, soil carbon, root, and stand characteristics on soil CO2 efflux in loblolly pine (Pinus taeda L.) plantations located on the South Carolina Coastal Plain. Forest Ecology and Management, 2004, 191, 353-363.	3.2	58
46	Net primary production of a temperate deciduous forest exhibits a threshold response to increasing disturbance severity. Ecology, 2015, 96, 2478-2487.	3.2	55
47	Enhancing global change experiments through integration of remoteâ€sensing techniques. Frontiers in Ecology and the Environment, 2019, 17, 215-224.	4.0	55
48	Linking plant functional trait plasticity and the large increase in forest water use efficiency. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2393-2408.	3.0	54
49	Can EVI-derived land-surface phenology be used as a surrogate for phenology of canopy photosynthesis?. International Journal of Remote Sensing, 2014, 35, 1162-1174.	2.9	52
50	Defining a spectrum of integrative traitâ€based vegetation canopy structural types. Ecology Letters, 2019, 22, 2049-2059.	6.4	52
51	COSORE: A community database for continuous soil respiration and other soilâ€atmosphere greenhouse gas flux data. Global Change Biology, 2020, 26, 7268-7283.	9.5	50
52	Remote sensing of canopy light use efficiency in temperate and boreal forests of North America using MODIS imagery. Remote Sensing of Environment, 2012, 118, 60-72.	11.0	49
53	Evidence of autumn phenology control on annual net ecosystem productivity in two temperate deciduous forests. Ecological Engineering, 2013, 60, 88-95.	3.6	48
54	Spatioâ€Temporal Convergence of Maximum Daily Lightâ€Use Efficiency Based on Radiation Absorption by Canopy Chlorophyll. Geophysical Research Letters, 2018, 45, 3508-3519.	4.0	48

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55	Temperature thresholds of ecosystem respiration at a global scale. Nature Ecology and Evolution, 2021, 5, 487-494.	7.8	46
56	Canopy Structural Changes Following Widespread Mortality of Canopy Dominant Trees. Forests, 2013, 4, 537-552.	2.1	43
57	Compatibility of Aerial and Terrestrial LiDAR for Quantifying Forest Structural Diversity. Remote Sensing, 2020, 12, 1407.	4.0	41
58	Structure, Properties, and Tissue Localization of Apoplastic Î±-Glucosidase in Crucifers1. Plant Physiology, 1999, 119, 385-398.	4.8	37
59	Soil CO2 efflux in loblolly pine (Pinus taeda L.) plantations on the Virginia Piedmont and South Carolina Coastal Plain over a rotation-length chronosequence. Biogeochemistry, 2005, 73, 127-147.	3.5	33
60	Evaluating the effect of alternative carbon allocation schemes in a land surface modelÂ(CLM4.5) on carbon fluxes, pools, and turnover in temperate forests. Geoscientific Model Development, 2017, 10, 3499-3517.	3.6	32
61	Application of multidimensional structural characterization to detect and describe moderate forest disturbance. Ecosphere, 2020, 11, e03156.	2.2	32
62	Temporal Dynamics of Aerodynamic Canopy Height Derived From Eddy Covariance Momentum Flux Data Across North American Flux Networks. Geophysical Research Letters, 2018, 45, 9275-9287.	4.0	31
63	Belowground carbon dynamics in loblolly pine (Pinus taeda) immediately following diammonium phosphate fertilization. Tree Physiology, 2004, 24, 845-851.	3.1	30
64	Thermal adaptation of net ecosystem exchange. Biogeosciences, 2011, 8, 1453-1463.	3.3	30
65	Evaluating the agreement between measurements and models of net ecosystem exchange at different times and timescales using wavelet coherence: an example using data from the North American Carbon Program Site-Level Interim Synthesis. Biogeosciences, 2013, 10, 6893-6909.	3.3	30
66	Evaluating forest subcanopy response to moderate severity disturbance and contribution to ecosystem-level productivity and resilience. Forest Ecology and Management, 2016, 376, 135-147.	3.2	30
67	Spatiotemporal Consistency of Four Gross Primary Production Products and Solarâ€Induced Chlorophyll Fluorescence in Response to Climate Extremes Across CONUS in 2012. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3140-3161.	3.0	30
68	Phenological and Temperature Controls on the Temporal Non-Structural Carbohydrate Dynamics of Populus grandidentata and Quercus rubra. Forests, 2010, 1, 65-81.	2.1	29
69	Low historical nitrogen deposition effect on carbon sequestration in the boreal zone. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2542-2561.	3.0	29
70	Effects of canopy structure and species diversity on primary production in upper Great Lakes forests. Oecologia, 2018, 188, 405-415.	2.0	29
71	Warming homogenizes apparent temperature sensitivity of ecosystem respiration. Science Advances, 2021, 7, .	10.3	28
72	Contribution of atmospheric nitrogen deposition to net primary productivity in a northern hardwood forest. Canadian Journal of Forest Research, 2009, 39, 1108-1118.	1.7	25

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73	Structure and parameter uncertainty in centennial projections of forest community structure and carbon cycling. Global Change Biology, 2020, 26, 6080-6096.	9.5	25
74	Spatial Variation in Canopy Structure across Forest Landscapes. Forests, 2018, 9, 474.	2.1	24
75	Community and structural constraints on the complexity of eastern North American forests. Global Ecology and Biogeography, 2020, 29, 2107-2118.	5.8	24
76	Stand age, disturbance history and the temporal stability of forest production. Forest Ecology and Management, 2020, 460, 117865.	3.2	24
77	A reporting format for leaf-level gas exchange data and metadata. Ecological Informatics, 2021, 61, 101232.	5.2	22
78	Coarse woody debris and the carbon balance of a moderately disturbed forest. Forest Ecology and Management, 2016, 361, 38-45.	3.2	21
79	Physiographic factors underlie rates of biomass production during succession in Great Lakes forest landscapes. Forest Ecology and Management, 2017, 397, 157-173.	3.2	20
80	Root lateral interactions drive water uptake patterns under water limitation. Advances in Water Resources, 2021, 151, 103896.	3.8	20
81	Multivariate Conditional Granger Causality Analysis for Lagged Response of Soil Respiration in a Temperate Forest. Entropy, 2013, 15, 4266-4284.	2.2	18
82	Lawn soil carbon storage in abandoned residential properties: An examination of ecosystem structure and function following partial human-natural decoupling. Journal of Environmental Management, 2012, 98, 155-162.	7.8	17
83	Forest Structural Complexity and Biomass Predict First-Year Carbon Cycling Responses to Disturbance. Ecosystems, 2021, 24, 699-712.	3.4	17
84	Moderate forest disturbance as a stringent test for gap and big-leaf models. Biogeosciences, 2015, 12, 513-526.	3.3	16
85	Quantifying deforestation and forest degradation with thermal response. Science of the Total Environment, 2017, 607-608, 1286-1292.	8.0	16
86	Disturbanceâ€accelerated succession increases the production of a temperate forest. Ecological Applications, 2021, 31, e02417.	3.8	15
87	Biogeosciences Perspectives on Integrated, Coordinated, Open, Networked (ICON) Science. Earth and Space Science, 2022, 9, .	2.6	14
88	A multidimensional stability framework enhances interpretation and comparison of carbon cycling response to disturbance. Ecosphere, 2021, 12, e03800.	2.2	13
89	Coupling Fine-Scale Root and Canopy Structure Using Ground-Based Remote Sensing. Remote Sensing, 2017, 9, 182.	4.0	12
90	Forest structure, diversity, and primary production in relation to disturbance severity. Ecology and Evolution, 2020, 10, 4419-4430.	1.9	12

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91	Power law scaling relationships link canopy structural complexity and height across forest types. Functional Ecology, 2022, 36, 713-726.	3.6	10
92	Modeling forest carbon cycle response to tree mortality: Effects of plant functional type and disturbance intensity. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2178-2193.	3.0	9
93	The <i>fortedata</i> R package: open-science datasets from a manipulative experiment testing forest resilience. Earth System Science Data, 2021, 13, 943-952.	9.9	9
94	Wood Decay Characteristics and Interspecific Interactions Control Bacterial Community Succession in Populus grandidentata (Bigtooth Aspen). Frontiers in Microbiology, 2019, 10, 979.	3.5	8
95	Contrasting Development of Canopy Structure and Primary Production in Planted and Naturally Regenerated Red Pine Forests. Forests, 2019, 10, 566.	2.1	7
96	Aboveground Wood Production Is Sustained in the First Growing Season after Phloem-Disrupting Disturbance. Forests, 2020, 11, 1306.	2.1	7
97	Disturbance has variable effects on the structural complexity of a temperate forest landscape. Ecological Indicators, 2022, 140, 109004.	6.3	7
98	Multidecadal trajectories of soil chemistry and nutrient availability following cutting vs. burning disturbances in Upper Great Lakes forests. Canadian Journal of Forest Research, 2019, 49, 731-742.	1.7	6
99	Moderate Disturbance Has Similar Effects on Production Regardless of Site Quality and Composition. Forests, 2018, 9, 70.	2.1	5
100	Structural complexity and primary production resistance are coupled in a temperate forest. Frontiers in Forests and Global Change, 0, 5, .	2.3	5
101	Collar Properties and Measurement Time Confer Minimal Bias Overall on Annual Soil Respiration Estimates in a Global Database. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG006066.	3.0	4
102	Climate Drives Modeled Forest Carbon Cycling Resistance and Resilience in the Upper Great Lakes Region, USA. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	4
103	Research Article: Soil respiration in upper Great Lakes old-growth forest ecosystems. Bios, 2017, 88, 105-115.	0.0	3
104	Inferring the effects of partial defoliation on the carbon cycle from forest structure: challenges and opportunities. Environmental Research Letters, 2022, 17, 011002.	5.2	3
105	Coupling of Tree Growth and Photosynthetic Carbon Uptake Across Six North American Forests. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	3
106	Fire after clear-cut harvesting minimally affects the recovery of ecosystem carbon pools and fluxes in a Great Lakes forest. Forest Ecology and Management, 2022, 519, 120301.	3.2	2
107	An experimental approach for crown to whole-canopy defoliation in forests. Canadian Journal of Forest Research, 0, , .	1.7	0
108	Forest Carbon Sequestration Increases Following a Largeâ€Scale Manipulation of Moderate Severity Disturbance. Bulletin of the Ecological Society of America, 2021, 102, e01923.	0.2	0

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109	Fire after Clear-Cut Harvesting Minimally Affects the Recovery of Ecosystem Carbon Pools and Fluxes in a Great Lakes Forest. SSRN Electronic Journal, 0, , .	0.4	0