Jeffrey Q Chambers

List of Publications by Year
in descending order

115 papers	13,633 citations	61857 43 h-index	27345 106 g-index
119 all docs	119 docs citations	119 times ranked	15913 citing authors

#	Article	IF	Citations
1	Tree allometry and improved estimation of carbon stocks and balance in tropical forests. Oecologia, 2005, 145, 87-99.	0.9	2,346
2	TRY â€" a global database of plant traits. Global Change Biology, 2011, 17, 2905-2935.	4.2	2,002
3	MEASURING NET PRIMARY PRODUCTION IN FORESTS: CONCEPTS AND FIELD METHODS. , 2001, 11, 356-370.		748
4	NET PRIMARY PRODUCTION IN TROPICAL FORESTS: AN EVALUATION AND SYNTHESIS OF EXISTING FIELD DATA. , 2001, 11, 371-384.		540
5	Decomposition and carbon cycling of dead trees in tropical forests of the central Amazon. Oecologia, 2000, 122, 380-388.	0.9	360
6	Tree damage, allometric relationships, and above-ground net primary production in central Amazon forest. Forest Ecology and Management, 2001, 152, 73-84.	1.4	359
7	Relationship between soils and Amazon forest biomass: a landscape-scale study. Forest Ecology and Management, 1999, 118, 127-138.	1.4	351
8	RESPIRATION FROM A TROPICAL FOREST ECOSYSTEM: PARTITIONING OF SOURCES AND LOW CARBON USE EFFICIENCY. , 2004, 14, 72-88.		344
9	Drivers and mechanisms of tree mortality in moist tropical forests. New Phytologist, 2018, 219, 851-869.	3.5	341
10	The effects of partial throughfall exclusion on canopy processes, aboveground production, and biogeochemistry of an Amazon forest. Journal of Geophysical Research, 2002, 107, LBA 53-1.	3.3	316
11	Regional ecosystem structure and function: ecological insights from remote sensing of tropical forests. Trends in Ecology and Evolution, 2007, 22, 414-423.	4.2	295
12	Forest disturbance and recovery: A general review in the context of spaceborne remote sensing of impacts on aboveground biomass and canopy structure. Journal of Geophysical Research, 2009, 114, .	3.3	281
13	Comprehensive assessment of carbon productivity, allocation and storage in three Amazonian forests. Global Change Biology, 2009, 15, 1255-1274.	4.2	280
14	Hurricane Katrina's Carbon Footprint on U.S. Gulf Coast Forests. Science, 2007, 318, 1107-1107.	6.0	248
15	Ancient trees in Amazonia. Nature, 1998, 391, 135-136.	13.7	244
16	The steady-state mosaic of disturbance and succession across an old-growth Central Amazon forest landscape. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3949-3954.	3.3	186
17	Global satellite monitoring of climate-induced vegetation disturbances. Trends in Plant Science, 2015, 20, 114-123.	4.3	183
18	Respiration from coarse wood litter in central Amazon forests. Biogeochemistry, 2001, 52, 115-131.	1.7	173

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19	Acclimation and adaptation components of the temperature dependence of plant photosynthesis at the global scale. New Phytologist, 2019, 222, 768-784.	3.5	171
20	Toward an integrated monitoring framework to assess the effects of tropical forest degradation and recovery on carbon stocks and biodiversity. Global Change Biology, 2016, 22, 92-109.	4.2	165
21	Forest structure and carbon dynamics in Amazonian tropical rain forests. Oecologia, 2004, 140, 468-479.	0.9	157
22	Immunological cost of chemical defence and the evolution of herbivore diet breadth. Ecology Letters, 2009, 12, 612-621.	3.0	156
23	Slow growth rates of Amazonian trees: Consequences for carbon cycling. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18502-18507.	3.3	154
24	Clustered disturbances lead to bias in largeâ€scale estimates based on forest sample plots. Ecology Letters, 2008, 11, 554-563.	3.0	148
25	Carbon sink for a century. Nature, 2001, 410, 429-429.	13.7	140
26	Diameter increment and growth patterns for individual tree growing in Central Amazon, Brazil. Forest Ecology and Management, 2002, 166, 295-301.	1.4	124
27	Response of tree biomass and wood litter to disturbance in a Central Amazon forest. Oecologia, 2004, 141, 596-611.	0.9	121
28	Widespread Amazon forest tree mortality from a single crossâ€basin squall line event. Geophysical Research Letters, 2010, 37, .	1.5	116
29	Biomass change in an Atlantic tropical moist forest: the ENSO effect in permanent sample plots over a 22-year period. Oecologia, 2005, 142, 238-246.	0.9	96
30	Some aspects of ecophysiological and biogeochemical responses of tropical forests to atmospheric change. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 463-476.	1.8	92
31	Impacts of tropical cyclones on U.S. forest tree mortality and carbon flux from 1851 to 2000. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7888-7892.	3.3	85
32	Hurricane Katrina impacts on forest trees of Louisiana's Pearl River basin. Forest Ecology and Management, 2008, 256, 883-889.	1.4	83
33	Benchmarking and parameter sensitivity of physiological and vegetation dynamics using the Functionally Assembled Terrestrial Ecosystem Simulator (FATES) at Barro Colorado Island, Panama. Biogeosciences, 2020, 17, 3017-3044.	1.3	82
34	Controls on terrestrial carbon feedbacks by productivity versus turnover in the CMIP5 Earth System Models. Biogeosciences, 2015, 12, 5211-5228.	1.3	81
35	Large-Scale Wind Disturbances Promote Tree Diversity in a Central Amazon Forest. PLoS ONE, 2014, 9, e103711.	1.1	75
36	Emissions of putative isoprene oxidation products from mango branches under abiotic stress. Journal of Experimental Botany, 2013, 64, 3669-3679.	2.4	72

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37	Highly reactive lightâ€dependent monoterpenes in the Amazon. Geophysical Research Letters, 2015, 42, 1576-1583.	1.5	71
38	Seeing the forest beyond the trees. Global Ecology and Biogeography, 2015, 24, 606-610.	2.7	56
39	What's the flux? Unraveling how <scp>CO</scp>₂ fluxes from trees reflect underlying physiological processes. New Phytologist, 2013, 197, 353-355.	3.5	52
40	Monoterpene â€˜<i>thermometer</i>â€™ of tropical forestâ€atmosphere response to climate warming. Plant, Cell and Environment, 2017, 40, 441-452.	2.8	52
41	Detection of subpixel treefall gaps with Landsat imagery in Central Amazon forests. Remote Sensing of Environment, 2011, 115, 3322-3328.	4.6	51
42	Observed allocations of productivity and biomass, and turnover times in tropical forests are not accurately represented in CMIP5 Earth system models. Environmental Research Letters, 2015, 10, 064017.	2.2	51
43	Vulnerability of Amazon forests to storm-driven tree mortality. Environmental Research Letters, 2018, 13, 054021.	2.2	49
44	Dry and hot: the hydraulic consequences of a climate changeâ€“type drought for Amazonian trees. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20180209.	1.8	49
45	Regional Differences in South American Monsoon Precipitation Inferred from the Growth and Isotopic Composition of Tropical Trees*. Earth Interactions, 2011, 15, 1-35.	0.7	46
46	Delayed tree mortality and Chinese tallow (Triadica sebifera) population explosion in a Louisiana bottomland hardwood forest following Hurricane Katrina. Forest Ecology and Management, 2016, 378, 222-232.	1.4	45
47	Internal respiration of Amazon tree stems greatly exceeds external CO₂ efflux. Biogeosciences, 2012, 9, 4979-4991.	1.3	44
48	Deforestation size influences rainfall. Nature Climate Change, 2017, 7, 175-176.	8.1	44
49	Windthrows control biomass patterns and functional composition of Amazon forests. Global Change Biology, 2018, 24, 5867-5881.	4.2	43
50	Convergent evolution of tree hydraulic traits in Amazonian habitats: implications for community assemblage and vulnerability to drought. New Phytologist, 2020, 228, 106-120.	3.5	42
51	Dynamic Balancing of Isoprene Carbon Sources Reflects Photosynthetic and Photorespiratory Responses to Temperature Stress. Plant Physiology, 2014, 166, 2051-2064.	2.3	41
52	Green Leaf Volatile Emissions during High Temperature and Drought Stress in a Central Amazon Rainforest. Plants, 2015, 4, 678-690.	1.6	41
53	Climate sensitive size-dependent survival in tropical trees. Nature Ecology and Evolution, 2018, 2, 1436-1442.	3.4	41
54	Variation in hydroclimate sustains tropical forest biomass and promotes functional diversity. New Phytologist, 2018, 219, 932-946.	3.5	41

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55	Hyperspectral remote detection of niche partitioning among canopy trees driven by blowdown gap disturbances in the Central Amazon. Oecologia, 2009, 160, 107-117.	0.9	39
56	Landscapeâ€scale consequences of differential tree mortality from catastrophic wind disturbance in the Amazon. Ecological Applications, 2016, 26, 2225-2237.	1.8	38
57	Lack of intermediateâ€scale disturbance data prevents robust extrapolation of plotâ€level tree mortality rates for oldâ€growth tropical forests. Ecology Letters, 2009, 12, E22.	3.0	37
58	Assessing hurricaneâ€induced tree mortality in U.S. Gulf Coast forest ecosystems. Journal of Geophysical Research, 2010, 115, .	3.3	37
59	Carbon dioxide emitted from live stems of tropical trees is several years old. Tree Physiology, 2013, 33, 743-752.	1.4	37
60	DINÃ‚MICA E BALANÃ‡O DO CARBONO DA VEGETAÃ‡ÃƒO PRIMÃRIA DA AMAZÃ”NIA CENTRAL. Floresta, 2004, 34,	0.1	36
61	Revealing the causes and temporal distribution of tree mortality in Central Amazonia. Forest Ecology and Management, 2018, 424, 177-183.	1.4	36
62	Remote sensing and statistical analysis of the effects of hurricane MarÃa on the forests of Puerto Rico. Remote Sensing of Environment, 2020, 247, 111940.	4.6	36
63	Multi-scale sensitivity of Landsat and MODIS to forest disturbance associated with tropical cyclones. Remote Sensing of Environment, 2014, 140, 679-689.	4.6	33
64	Mechanical vulnerability and resistance to snapping and uprooting for Central Amazon tree species. Forest Ecology and Management, 2016, 380, 1-10.	1.4	33
65	Identification of key parameters controlling demographically structured vegetation dynamics in a land surface model: CLM4.5(FATES). Geoscientific Model Development, 2019, 12, 4133-4164.	1.3	32
66	Using ICESat's Geoscience Laser Altimeter System (GLAS) to assess large-scale forest disturbance caused by hurricane Katrina. Remote Sensing of Environment, 2011, 115, 86-96.	4.6	31
67	The impacts of tropical cyclones on the net carbon balance of eastern US forests (1851â€"2000). Environmental Research Letters, 2013, 8, 045017.	2.2	31
68	Methanol and isoprene emissions from the fast growing tropical pioneer species <i>Vismia guianensis</i> (Aubl.) Pers. (Hypericaceae) in the central Amazon forest. Atmospheric Chemistry and Physics, 2016, 16, 6441-6452.	1.9	31
69	Windthrow Variability in Central Amazonia. Atmosphere, 2017, 8, 28.	1.0	29
70	ProjeÃ§Ã£o da dinÃ¢mica da floresta natural de Terra-firme, regiÃ£o de Manaus-AM, com o uso da cadeia de transiÃ§Ã£o probabilÃstica de Markov. Acta Amazonica, 2007, 37, 377-384.	0.3	25
71	Restoration of Pasture to Forest in Brazil's Mata AtlÃ¢ntica: The Roles of Herbivory, Seedling Defenses, and Plot Design in Reforestation. Restoration Ecology, 2011, 19, 257-267.	1.4	25
72	Integration of C1 and C2 Metabolism in Trees. International Journal of Molecular Sciences, 2017, 18, 2045.	1.8	25

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73	The Central Amazon Biomass Sink Under Current and Future Atmospheric CO₂: Predictions From Bigâ€Leaf and Demographic Vegetation Models. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005500.	1.3	23
74	Forest response to increased disturbance in the central Amazon and comparison to western Amazonian forests. Biogeosciences, 2014, 11, 5773-5794.	1.3	22
75	Remote Sensing Assessment of Forest Disturbance across Complex Mountainous Terrain: The Pattern and Severity of Impacts of Tropical Cyclone Yasi on Australian Rainforests. Remote Sensing, 2014, 6, 5633-5649.	1.8	21
76	Critical wind speeds suggest wind could be an important disturbance agent in Amazonian forests. Forestry, 2019, 92, 444-459.	1.2	21
77	Leaf isoprene and monoterpene emission distribution across hyperdominant tree genera in the Amazon basin. Phytochemistry, 2020, 175, 112366.	1.4	21
78	Influence of landscape heterogeneity on water available to tropical forests in an Amazonian catchment and implications for modeling drought response. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8410-8426.	1.2	20
79	Stimulation of isoprene emissions and electron transport rates as key mechanisms of thermal tolerance in the tropical species <i>Vismia guianensis</i>. Global Change Biology, 2020, 26, 5928-5941.	4.2	20
80	Recognizing Amazonian tree species in the field using bark tissues spectra. Forest Ecology and Management, 2018, 427, 296-304.	1.4	19
81	Parameter estimation for a global model of terrestrial biogeochemical cycling by an iterative method. Ecological Modelling, 2001, 139, 137-175.	1.2	18
82	A metadata reporting framework (FRAMES) for synthesis of ecohydrological observations. Ecological Informatics, 2017, 42, 148-158.	2.3	18
83	Forest responses to simulated elevated CO₂ under alternate hypotheses of sizeâ€•and ageâ€dependent mortality. Global Change Biology, 2020, 26, 5734-5753.	4.2	18
84	Predicting biomass of hyperdiverse and structurally complex central Amazonian forests â€“ a virtual approach using extensive field data. Biogeosciences, 2016, 13, 1553-1570.	1.3	17
85	Interannual Variation in Hydrologic Budgets in an Amazonian Watershed with a Coupled Subsurfaceâ€“Land Surface Process Model. Journal of Hydrometeorology, 2017, 18, 2597-2617.	0.7	17
86	Species-Specific Shifts in Diurnal Sap Velocity Dynamics and Hysteretic Behavior of Ecophysiological Variables During the 2015â€“2016 El NiÃ±o Event in the Amazon Forest. Frontiers in Plant Science, 2019, 10, 830.	1.7	17
87	Hurricane driven changes in land cover create biogeophysical climate feedbacks. Geophysical Research Letters, 2008, 35, .	1.5	16
88	Harnessing cross-border resources to confront climate change. Environmental Science and Policy, 2018, 87, 128-132.	2.4	16
89	Integrating high resolution drone imagery and forest inventory to distinguish canopy and understory trees and quantify their contributions to forest structure and dynamics. PLoS ONE, 2020, 15, e0243079.	1.1	15
90	Below versus above Ground Plant Sources of Abscisic Acid (ABA) at the Heart of Tropical Forest Response to Warming. International Journal of Molecular Sciences, 2018, 19, 2023.	1.8	14

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91	Precipitation mediates sap flux sensitivity to evaporative demand in the neotropics. Oecologia, 2019, 191, 519-530.	0.9	14
92	Tropical forest carbon balance: effects of field- and satellite-based mortality regimes on the dynamics and the spatial structure of Central Amazon forest biomass. Environmental Research Letters, 2014, 9, 034010.	2.2	13
93	Calibration, measurement, and characterization of soil moisture dynamics in a central Amazonian tropical forest. Vadose Zone Journal, 2020, 19, e20070.	1.3	10
94	Uso de banda dendromÃ©trica na definiÃ§Ã£o de padrÃµes de crescimento individual em diÃ¢metro de Ã¡rvores da bacia do rio Cuieiras. Acta Amazonica, 2003, 33, 67-84.	0.3	10
95	Drought in the Congo Basin. Nature, 2014, 509, 36-37.	13.7	8
96	Volatile monoterpene â€˜fingerprintsâ€™ of resinous Protium tree species in the Amazon rainforest. Phytochemistry, 2019, 160, 61-70.	1.4	8
97	The contribution of respiration in tree stems to the Dole Effect. Biogeosciences, 2012, 9, 4037-4044.	1.3	7
98	Regional distribution of large blowdown patches across Amazonia in 2005 caused by a single convective squall line. Geophysical Research Letters, 2017, 44, 7793-7798.	1.5	7
99	Recovery of Forest Structure Following Large-Scale Windthrows in the Northwestern Amazon. Forests, 2021, 12, 667.	0.9	7
100	Landsat near-infrared (NIR) band and ELM-FATES sensitivity to forest disturbances and regrowth in the Central Amazon. Biogeosciences, 2020, 17, 6185-6205.	1.3	7
101	Novel tropical forests: response to global change. New Phytologist, 2017, 213, 988-992.	3.5	6
102	An age-old problem. Trends in Plant Science, 1999, 4, 385-386.	4.3	5
103	Soil moisture thresholds explain a shift from light-limited to water-limited sap velocity in the Central Amazon during the 2015â€“16 El NiÃ±o drought. Environmental Research Letters, 2022, 17, 064023.	2.2	5
104	Dry Season Transpiration and Soil Water Dynamics in the Central Amazon. Frontiers in Plant Science, 2022, 13, 825097.	1.7	4
105	Canopy Position Influences the Degree of Light Suppression of Leaf Respiration in Abundant Tree Genera in the Amazon Forest. Frontiers in Forests and Global Change, 2021, 4, .	1.0	3
106	Multi-cyclone analysis and machine learning model implications of cyclone effects on forests. International Journal of Applied Earth Observation and Geoinformation, 2021, 103, 102528.	1.4	2
107	Stem respiration and growth in a central Amazon rainforest. Trees - Structure and Function, 2022, 36, 991-1004.	0.9	2
108	The Rainfall Sensitivity of Tropical Net Primary Production in CMIP5 Twentieth- and Twenty-First-Century Simulations*. Journal of Climate, 2015, 28, 9313-9331.	1.2	1

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109	Diurnal Pattern of Leaf, Flower and Fruit Specific Ambient Volatiles above an Oil Palm Plantation in ParÃ¡ State, Brazil. Journal of the Brazilian Chemical Society, 2016, , .	0.6	1
110	Title is missing!. , 2020, 15, e0243079.		0
111	Title is missing!. , 2020, 15, e0243079.		0
112	Title is missing!. , 2020, 15, e0243079.		0
113	Title is missing!. , 2020, 15, e0243079.		0
114	Title is missing!. , 2020, 15, e0243079.		0
115	Title is missing!. , 2020, 15, e0243079.		0