Jeffrey Q Chambers

List of Publications by Year in Descending Order

113 papers	10,613 citations	39 h-index	103 g-index
119 ext. papers	12,116 ext. citations	7.6 avg, IF	5.54 L-index

#	Paper	IF	Citations
113	Dry Season Transpiration and Soil Water Dynamics in the Central Amazon.. *Frontiers in Plant Science* , **2022**, 13, 825097	6.2	1
112	Recovery of Forest Structure Following Large-Scale Windthrows in the Northwestern Amazon. *Forests*, **2021**, 12, 667	2.8	1
111	Multi-cyclone analysis and machine learning model implications of cyclone effects on forests. *International Journal of Applied Earth Observation and Geoinformation*, **2021**, 103, 102528	7.3	0
110	Stimulation of isoprene emissions and electron transport rates as key mechanisms of thermal tolerance in the tropical species Vismia guianensis. *Global Change Biology*, **2020**, 26, 5928-5941	11.4	8
109	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	4.6	35
108	Remote sensing and statistical analysis of the effects of hurricane Marˆ a on the forests of Puerto Rico. *Remote Sensing of Environment*, **2020**, 247, 111940	13.2	14
107	Forest responses to simulated elevated CO under alternate hypotheses of size- and age-dependent mortality. *Global Change Biology*, **2020**, 26, 5734-5753	11.4	7
106	The Central Amazon Biomass Sink Under Current and Future Atmospheric CO2: Predictions From Big-Leaf and Demographic Vegetation Models. *Journal of Geophysical Research G: Biogeosciences*, **2020**, 125, e2019JG005500	3.7	12
105	Leaf isoprene and monoterpene emission distribution across hyperdominant tree genera in the Amazon basin. *Phytochemistry*, **2020**, 175, 112366	4	10
104	Convergent evolution of tree hydraulic traits in Amazonian habitats: implications for community assemblage and vulnerability to drought. *New Phytologist*, **2020**, 228, 106-120	9.8	14
103	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	3.7	3
102	Landsat near-infrared (NIR) band and ELM-FATES sensitivity to forest disturbances and regrowth in the Central Amazon. *Biogeosciences*, **2020**, 17, 6185-6205	4.6	0
101	Calibration, measurement, and characterization of soil moisture dynamics in a central Amazonian tropical forest. *Vadose Zone Journal*, **2020**, 19, e20070	2.7	4
100	Integrating high resolution drone imagery and forest inventory to distinguish canopy and understory trees and quantify their contributions to forest structure and dynamics **2020**, 15, e0243079		
99	Integrating high resolution drone imagery and forest inventory to distinguish canopy and understory trees and quantify their contributions to forest structure and dynamics **2020**, 15, e0243079		
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96	Integrating high resolution drone imagery and forest inventory to distinguish canopy and understory trees and quantify their contributions to forest structure and dynamics **2020**, 15, e0243079		
95	Integrating high resolution drone imagery and forest inventory to distinguish canopy and understory trees and quantify their contributions to forest structure and dynamics **2020**, 15, e0243079		
94	Precipitation mediates sap flux sensitivity to evaporative demand in the neotropics. *Oecologia*, **2019**, 191, 519-530	2.9	8
93	Critical wind speeds suggest wind could be an important disturbance agent in Amazonian forests. *Forestry*, **2019**, 92, 444-459	2.2	14
92	Volatile monoterpene fingerprints of resinous Protium tree species in the Amazon rainforest. *Phytochemistry*, **2019**, 160, 61-70	4	7
91	Species-Specific Shifts in Diurnal Sap Velocity Dynamics and Hysteretic Behavior of Ecophysiological Variables During the 2015-2016 El Niño Event in the Amazon Forest. *Frontiers in Plant Science*, **2019**, 10, 830	6.2	8
90	Identification of key parameters controlling demographically structured vegetation dynamics in a land surface model: CLM4.5(FATES). *Geoscientific Model Development*, **2019**, 12, 4133-4164	6.3	16
89	Acclimation and adaptation components of the temperature dependence of plant photosynthesis at the global scale. *New Phytologist*, **2019**, 222, 768-784	9.8	99
88	Harnessing cross-border resources to confront climate change. *Environmental Science and Policy*, **2018**, 87, 128-132	6.2	9
87	Vulnerability of Amazon forests to storm-driven tree mortality. *Environmental Research Letters*, **2018**, 13, 054021	6.2	27
86	Drivers and mechanisms of tree mortality in moist tropical forests. *New Phytologist*, **2018**, 219, 851-869	9.8	209
85	Revealing the causes and temporal distribution of tree mortality in Central Amazonia. *Forest Ecology and Management*, **2018**, 424, 177-183	3.9	25
84	Climate sensitive size-dependent survival in tropical trees. *Nature Ecology and Evolution*, **2018**, 2, 1436-1442	11.3	23
83	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,	6.3	7
82	Recognizing Amazonian tree species in the field using bark tissues spectra. *Forest Ecology and Management*, **2018**, 427, 296-304	3.9	14
81	Variation in hydroclimate sustains tropical forest biomass and promotes functional diversity. *New Phytologist*, **2018**, 219, 932-946	9.8	22
80	Dry and hot: the hydraulic consequences of a climate change-type drought for Amazonian trees. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2018**, 373,	5.8	23
79	Windthrows control biomass patterns and functional composition of Amazon forests. *Global Change Biology*, **2018**, 24, 5867-5881	11.4	25

78	Novel tropical forests: response to global change. *New Phytologist*, **2017**, 213, 988-992	9.8	5
77	Monoterpene ‘thermometer’ of tropical forest-atmosphere response to climate warming. *Plant, Cell and Environment*, **2017**, 40, 441-452	8.4	31
76	Windthrow Variability in Central Amazonia. *Atmosphere*, **2017**, 8, 28	2.7	14
75	Interannual Variation in Hydrologic Budgets in an Amazonian Watershed with a Coupled Subsurfaceâ€“Land Surface Process Model. *Journal of Hydrometeorology*, **2017**, 18, 2597-2617	3.7	14
74	A metadata reporting framework (FRAMES) for synthesis of ecohydrological observations. *Ecological Informatics*, **2017**, 42, 148-158	4.2	7
73	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	4.4	14
72	Regional distribution of large blowdown patches across Amazonia in 2005 caused by a single convective squall line. *Geophysical Research Letters*, **2017**, 44, 7793-7798	4.9	4
71	Integration of Câ€“and Câ€“Metabolism in Trees. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	12
70	Mechanical vulnerability and resistance to snapping and uprooting for Central Amazon tree species. *Forest Ecology and Management*, **2016**, 380, 1-10	3.9	22
69	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	6.8	20
68	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	11.4	126
67	Predicting biomass of hyperdiverse and structurally complex central Amazonian forests â€“ a virtual approach using extensive field data. *Biogeosciences*, **2016**, 13, 1553-1570	4.6	13
66	Landscape-scale consequences of differential tree mortality from catastrophic wind disturbance in the Amazon. *Ecological Applications*, **2016**, 26, 2225-2237	4.9	26
65	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	3.9	31
64	Seeing the forest beyond the trees. *Global Ecology and Biogeography*, **2015**, 24, 606-610	6.1	50
63	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	6.2	43
62	The Rainfall Sensitivity of Tropical Net Primary Production in CMIP5 Twentieth- and Twenty-First-Century Simulations*. *Journal of Climate*, **2015**, 28, 9313-9331	4.4	1
61	Green Leaf Volatile Emissions during High Temperature and Drought Stress in a Central Amazon Rainforest. *Plants*, **2015**, 4, 678-90	4.5	27

60	Controls on terrestrial carbon feedbacks by productivity versus turnover in the CMIP5 Earth System Models. *Biogeosciences*, **2015**, 12, 5211-5228	4.6	58
59	Highly reactive light-dependent monoterpenes in the Amazon. *Geophysical Research Letters*, **2015**, 42, 1576-1583	4.9	52
58	Global satellite monitoring of climate-induced vegetation disturbances. *Trends in Plant Science*, **2015**, 20, 114-23	13.1	142
57	Multi-scale sensitivity of Landsat and MODIS to forest disturbance associated with tropical cyclones. *Remote Sensing of Environment*, **2014**, 140, 679-689	13.2	25
56	Ecology: drought in the congo basin. *Nature*, **2014**, 509, 36-7	50.4	4
55	Forest response to increased disturbance in the central Amazon and comparison to western Amazonian forests. *Biogeosciences*, **2014**, 11, 5773-5794	4.6	18
54	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	5	16
53	Dynamic balancing of isoprene carbon sources reflects photosynthetic and photorespiratory responses to temperature stress. *Plant Physiology*, **2014**, 166, 2051-64	6.6	32
52	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	6.2	11
51	Large-scale wind disturbances promote tree diversity in a Central Amazon forest. *PLoS ONE*, **2014**, 9, e103711	3.7	51
50	What? the flux? Unraveling how CO□ fluxes from trees reflect underlying physiological processes. *New Phytologist*, **2013**, 197, 353-355	9.8	40
49	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, 3949-54	11.5	148
48	Carbon dioxide emitted from live stems of tropical trees is several years old. *Tree Physiology*, **2013**, 33, 743-52	4.2	30
47	Emissions of putative isoprene oxidation products from mango branches under abiotic stress. *Journal of Experimental Botany*, **2013**, 64, 3697-708	7	59
46	The impacts of tropical cyclones on the net carbon balance of eastern US forests (1851–2000). *Environmental Research Letters*, **2013**, 8, 045017	6.2	25
45	The contribution of respiration in tree stems to the Dole Effect. *Biogeosciences*, **2012**, 9, 4037-4044	4.6	6
44	Internal respiration of Amazon tree stems greatly exceeds external CO₂ efflux. *Biogeosciences*, **2012**, 9, 4979-4991	4.6	34
43	Detection of subpixel treefall gaps with Landsat imagery in Central Amazon forests. *Remote Sensing of Environment*, **2011**, 115, 3322-3328	13.2	38

42	TRY â□a global database of plant traits. *Global Change Biology*, **2011**, 17, 2905-2935	11.4	1623
41	Restoration of Pasture to Forest in BrazilB Mata Atlˆ □ntica: The Roles of Herbivory, Seedling Defenses, and Plot Design in Reforestation. *Restoration Ecology*, **2011**, 19, 257-267	3.1	22
40	Using ICESatB Geoscience Laser Altimeter System (GLAS) to assess large-scale forest disturbance caused by hurricane Katrina. *Remote Sensing of Environment*, **2011**, 115, 86-96	13.2	29
39	Regional Differences in South American Monsoon Precipitation Inferred from the Growth and Isotopic Composition of Tropical Trees*. *Earth Interactions*, **2011**, 15, 1-35	1.5	38
38	Assessing hurricane-induced tree mortality in U.S. Gulf Coast forest ecosystems. *Journal of Geophysical Research*, **2010**, 115,		33
37	Widespread Amazon forest tree mortality from a single cross-basin squall line event. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	92
36	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, 7888-92	11.5	70
35	Hyperspectral remote detection of niche partitioning among canopy trees driven by blowdown gap disturbances in the Central Amazon. *Oecologia*, **2009**, 160, 107-17	2.9	33
34	Comprehensive assessment of carbon productivity, allocation and storage in three Amazonian forests. *Global Change Biology*, **2009**, 15, 1255-1274	11.4	248
33	Immunological cost of chemical defence and the evolution of herbivore diet breadth. *Ecology Letters*, **2009**, 12, 612-21	10	127
32	Lack of intermediate-scale disturbance data prevents robust extrapolation of plot-level tree mortality rates for old-growth tropical forests. *Ecology Letters*, **2009**, 12, E22-E25	10	32
31	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, n/a-n/a		224
30	Clustered disturbances lead to bias in large-scale estimates based on forest sample plots. *Ecology Letters*, **2008**, 11, 554-63	10	131
29	Hurricane Katrina impacts on forest trees of LouisianaB Pearl River basin. *Forest Ecology and Management*, **2008**, 256, 883-889	3.9	69
28	Hurricane driven changes in land cover create biogeophysical climate feedbacks. *Geophysical Research Letters*, **2008**, 35,	4.9	12
27	Projeˆ □□o da dinˆ □mica da floresta natural de Terra-firme, regiˆ □o de Manaus-AM, com o uso da cadeia de transiˆ □□o probabilˆ □stica de Markov. *Acta Amazonica*, **2007**, 37, 377-384	0.8	19
26	Hurricane KatrinaB carbon footprint on U.S. Gulf Coast forests. *Science*, **2007**, 318, 1107	33.3	208
25	Regional ecosystem structure and function: ecological insights from remote sensing of tropical forests. *Trends in Ecology and Evolution*, **2007**, 22, 414-23	10.9	225

24	Biomass change in an Atlantic tropical moist forest: the ENSO effect in permanent sample plots over a 22-year period. *Oecologia*, **2005**, 142, 238-46	2.9	87
23	Tree allometry and improved estimation of carbon stocks and balance in tropical forests. *Oecologia*, **2005**, 145, 87-99	2.9	1855
22	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, 18502-7	11.5	118
21	DIN^ MICA E BALAN^ O DO CARBONO DA VEGETA^ O PRIM^ RIA DA AMAZ^ NIA CENTRAL. *Floresta*, **2004**, 34,	0.6	21
20	RESPIRATION FROM A TROPICAL FOREST ECOSYSTEM: PARTITIONING OF SOURCES AND LOW CARBON USE EFFICIENCY **2004**, 14, 72-88		280
19	Forest structure and carbon dynamics in Amazonian tropical rain forests. *Oecologia*, **2004**, 140, 468-79	2.9	140
18	Response of tree biomass and wood litter to disturbance in a Central Amazon forest. *Oecologia*, **2004**, 141, 596-611	2.9	102
17	Some aspects of ecophysiological and biogeochemical responses of tropical forests to atmospheric change. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2004**, 359, 463-76	5.8	72
16	Uso de banda dendrom^ trica na defini^ O de padr^ Es de crescimento individual em di^ Ametro de ^ Evores da bacia do rio Cuieiras. *Acta Amazonica*, **2003**, 33, 67-84	0.8	6
15	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		267
14	Diameter increment and growth patterns for individual tree growing in Central Amazon, Brazil. *Forest Ecology and Management*, **2002**, 166, 295-301	3.9	102
13	Respiration from coarse wood litter in central Amazon forests. *Biogeochemistry*, **2001**, 52, 115-131	3.8	130
12	Carbon sink for a century. *Nature*, **2001**, 410, 429	50.4	98
11	MEASURING NET PRIMARY PRODUCTION IN FORESTS: CONCEPTS AND FIELD METHODS **2001**, 11, 356-370		624
10	NET PRIMARY PRODUCTION IN TROPICAL FORESTS: AN EVALUATION AND SYNTHESIS OF EXISTING FIELD DATA **2001**, 11, 371-384		441
9	Tree damage, allometric relationships, and above-ground net primary production in central Amazon forest. *Forest Ecology and Management*, **2001**, 152, 73-84	3.9	300
8	Parameter estimation for a global model of terrestrial biogeochemical cycling by an iterative method. *Ecological Modelling*, **2001**, 139, 137-175	3	15
7	Decomposition and carbon cycling of dead trees in tropical forests of the central Amazon. *Oecologia*, **2000**, 122, 380-388	2.9	308

6	An age-old problem. *Trends in Plant Science*, **1999**, 4, 385-386	13.1	4
5	Relationship between soils and Amazon forest biomass: a landscape-scale study. *Forest Ecology and Management*, **1999**, 118, 127-138	3.9	284
4	Ancient trees in Amazonia. *Nature*, **1998**, 391, 135-136	50.4	195
3	Stem respiration and growth in a central Amazon rainforest. *Trees - Structure and Function*,1	2.6	0
2	Rapid remote sensing assessment of impacts from Hurricane Maria on forests of Puerto Rico		3
1	Rapid remote sensing assessment of impacts from Hurricane Maria on forests of Puerto Rico		8