T R Feldpausch

List of Publications by Year
in descending order

123 papers	15,214 citations	30070 54 h-index	19749 117 g-index
141 all docs	141 docs citations	141 times ranked	15512 citing authors

#	Article	IF	Citations
1	Drought Sensitivity of the Amazon Rainforest. Science, 2009, 323, 1344-1347.	12.6	1,443
2	Hyperdominance in the Amazonian Tree Flora. Science, 2013, 342, 1243092.	12.6	873
3	Increasing carbon storage in intact African tropical forests. Nature, 2009, 457, 1003-1006.	27.8	816
4	Long-term decline of the Amazon carbon sink. Nature, 2015, 519, 344-348.	27.8	796
5	Droughtâ€“mortality relationships for tropical forests. New Phytologist, 2010, 187, 631-646.	7.3	487
6	Drought impact on forest carbon dynamics and fluxes in Amazonia. Nature, 2015, 519, 78-82.	27.8	464
7	Persistent effects of pre-Columbian plant domestication on Amazonian forest composition. Science, 2017, 355, 925-931.	12.6	443
8	Asynchronous carbon sink saturation in African and Amazonian tropical forests. Nature, 2020, 579, 80-87.	27.8	439
9	Global traitâ€“environment relationships of plant communities. Nature Ecology and Evolution, 2018, 2, 1906-1917.	7.8	397
10	Height-diameter allometry of tropical forest trees. Biogeosciences, 2011, 8, 1081-1106.	3.3	396
11	Tree height integrated into pantropical forest biomass estimates. Biogeosciences, 2012, 9, 3381-3403.	3.3	373
12	Climatic controls of decomposition drive the global biogeography of forest-tree symbioses. Nature, 2019, 569, 404-408.	27.8	371
13	Intensification of the Amazon hydrological cycle over the last two decades. Geophysical Research Letters, 2013, 40, 1729-1733.	4.0	284
14	Compositional response of Amazon forests to climate change. Global Change Biology, 2019, 25, 39-56.	9.5	265
15	Above-ground biomass and structure of 260 African tropical forests. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120295.	4.0	264
16	Diversity and carbon storage across the tropical forest biome. Scientific Reports, 2017, 7, 39102.	3.3	251
17	Markedly divergent estimates of <scp>A</scp>mazon forest carbon density from ground plots and satellites. Global Ecology and Biogeography, 2014, 23, 935-946.	5.8	248
18	Measuring biomass changes due to woody encroachment and deforestation/degradation in a forestâ€“savanna boundary region of central Africa using multi-temporal L-band radar backscatter. Remote Sensing of Environment, 2011, 115, 2861-2873.	11.0	226

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19	Using satellite radar backscatter to predict aboveâ€ground woody biomass: A consistent relationship across four different African landscapes. Geophysical Research Letters, 2009, 36, .	4.0	222
20	Hyperdominance in Amazonian forest carbon cycling. Nature Communications, 2015, 6, 6857.	12.8	214
21	Droughtâ€induced shifts in the floristic and functional composition of tropical forests in Ghana. Ecology Letters, 2012, 15, 1120-1129.	6.4	205
22	Amazon forest response to repeated droughts. Global Biogeochemical Cycles, 2016, 30, 964-982.	4.9	201
23	Long-term thermal sensitivity of Earthâ€™s tropical forests. Science, 2020, 368, 869-874.	12.6	198
24	CARBON AND NUTRIENT ACCUMULATION IN SECONDARY FORESTS REGENERATING ON PASTURES IN CENTRAL AMAZONIA. , 2004, 14, 164-176.		197
25	Coâ€limitation of photosynthetic capacity by nitrogen and phosphorus in West Africa woodlands. Plant, Cell and Environment, 2010, 33, 959-980.	5.7	192
26	What controls tropical forest architecture? Testing environmental, structural and floristic drivers. Global Ecology and Biogeography, 2012, 21, 1179-1190.	5.8	187
27	Size and frequency of natural forest disturbances and the Amazon forest carbon balance. Nature Communications, 2014, 5, 3434.	12.8	169
28	Ecosystem heterogeneity determines the ecological resilience of the Amazon to climate change. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 793-797.	7.1	161
29	Seasonal drought limits tree species across the Neotropics. Ecography, 2017, 40, 618-629.	4.5	143
30	ECOLOGICAL RESEARCH IN THE LARGE-SCALE BIOSPHEREâ€" ATMOSPHERE EXPERIMENT IN AMAZONIA: EARLY RESULTS. , 2004, 14, 3-16.		130
31	Estimating the global conservation status of more than 15,000 Amazonian tree species. Science Advances, 2015, 1, e1500936.	10.3	122
32	SAR tomography for the retrieval of forest biomass and height: Cross-validation at two tropical forest sites in French Guiana. Remote Sensing of Environment, 2016, 175, 138-147.	11.0	118
33	Variation in stem mortality rates determines patterns of aboveâ€ground biomass in <scp>A</scp>mazonian forests: implications for dynamic global vegetation models. Global Change Biology, 2016, 22, 3996-4013.	9.5	116
34	Variation in soil carbon stocks and their determinants across a precipitation gradient in <scp>W</scp>est <scp>A</scp>frica. Global Change Biology, 2012, 18, 1670-1683.	9.5	114
35	Species Distribution Modelling: Contrasting presence-only models with plot abundance data. Scientific Reports, 2018, 8, 1003.	3.3	113
36	Legacy of fire slows carbon accumulation in Amazonian forest regrowth. Frontiers in Ecology and the Environment, 2005, 3, 365-369.	4.0	111

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37	Recent Amazon climate as background for possible ongoing and future changes of Amazon humid forests. Global Biogeochemical Cycles, 2015, 29, 1384-1399.	4.9	107
38	On the delineation of tropical vegetation types with an emphasis on forest/savanna transitions. Plant Ecology and Diversity, 2013, 6, 101-137.	2.4	105
39	Disequilibrium and hyperdynamic tree turnover at the forestâ€“cerrado transition zone in southern Amazonia. Plant Ecology and Diversity, 2014, 7, 281-292.	2.4	97
40	Using repeated small-footprint LiDAR acquisitions to infer spatial and temporal variations of a high-biomass Neotropical forest. Remote Sensing of Environment, 2015, 169, 93-101.	11.0	92
41	Growth, leaf nutrient concentration and photosynthetic nutrient use efficiency in tropical tree species planted in degraded areas in central Amazonia. Forest Ecology and Management, 2006, 226, 299-309.	3.2	89
42	When big trees fall: Damage and carbon export by reduced impact logging in southern Amazonia. Forest Ecology and Management, 2005, 219, 199-215.	3.2	87
43	The number of tree species on Earth. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	86
44	The carbon balance of South America: a review of the status, decadal trends and main determinants. Biogeosciences, 2012, 9, 5407-5430.	3.3	78
45	Field methods for sampling tree height for tropical forest biomass estimation. Methods in Ecology and Evolution, 2018, 9, 1179-1189.	5.2	78
46	Panâ€tropical prediction of forest structure from the largest trees. Global Ecology and Biogeography, 2018, 27, 1366-1383.	5.8	78
47	Estimating aboveground net biomass change for tropical and subtropical forests: Refinement of IPCC default rates using forest plot data. Global Change Biology, 2019, 25, 3609-3624.	9.5	78
48	Methods to estimate aboveground wood productivity from long-term forest inventory plots. Forest Ecology and Management, 2014, 320, 30-38.	3.2	75
49	Drier tropical forests are susceptible to functional changes in response to a longâ€term drought. Ecology Letters, 2019, 22, 855-865.	6.4	75
50	Secondary forest growth deviation from chronosequence predictions in central Amazonia. Global Change Biology, 2007, 13, 967-979.	9.5	74
51	Does the disturbance hypothesis explain the biomass increase in basinâ€wide Amazon forest plot data?. Global Change Biology, 2009, 15, 2418-2430.	9.5	74
52	Tropical forest and peatland conservation in Indonesia: Challenges and directions. People and Nature, 2020, 2, 4-28.	3.7	74
53	Phylogenetic diversity of Amazonian tree communities. Diversity and Distributions, 2015, 21, 1295-1307.	4.1	72
54	Evidence for arrested succession in a lianaâ€infested Amazonian forest. Journal of Ecology, 2016, 104, 149-159.	4.0	71

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55	Fast demographic traits promote high diversification rates of Amazonian trees. Ecology Letters, 2014, 17, 527-536.	6.4	63
56	Structural, physiognomic and above-ground biomass variation in savannaâ€“forest transition zones on three continents â€“ how different are co-occurring savanna and forest formations?. Biogeosciences, 2015, 12, 2927-2951.	3.3	63
57	Tree mode of death and mortality risk factors across Amazon forests. Nature Communications, 2020, 11, 5515.	12.8	62
58	The global abundance of tree palms. Global Ecology and Biogeography, 2020, 29, 1495-1514.	5.8	62
59	Disentangling regional and local tree diversity in the Amazon. Ecography, 2009, 32, 46-54.	4.5	61
60	Non-structural carbohydrates mediate seasonal water stress across Amazon forests. Nature Communications, 2021, 12, 2310.	12.8	59
61	Competition influences tree growth, but not mortality, across environmental gradients in Amazonia and tropical Africa. Ecology, 2020, 101, e03052.	3.2	57
62	Edaphic, structural and physiological contrasts across Amazon Basin forestâ€“savanna ecotones suggest a role for potassium as a key modulator of tropical woody vegetation structure and function. Biogeosciences, 2015, 12, 6529-6571.	3.3	55
63	Differentiation of neotropical ecosystems by modern soil phytolith assemblages and its implications for palaeoenvironmental and archaeological reconstructions II: Southwestern Amazonian forests. Review of Palaeobotany and Palynology, 2016, 226, 30-43.	1.5	55
64	Biased-corrected richness estimates for the Amazonian tree flora. Scientific Reports, 2020, 10, 10130.	3.3	53
65	Relationships between soil hydrology and forest structure and composition in the southern Brazilian Amazon. Journal of Vegetation Science, 2007, 18, 183-194.	2.2	51
66	Floristics and biogeography of vegetation in seasonally dry tropical regions. International Forestry Review, 2015, 17, 10-32.	0.6	50
67	Soil physical conditions limit palm and tree basal area in Amazonian forests. Plant Ecology and Diversity, 2014, 7, 215-229.	2.4	45
68	The Forest Observation System, building a global reference dataset for remote sensing of forest biomass. Scientific Data, 2019, 6, 198.	5.3	44
69	Basin-wide variations in Amazon forest nitrogen-cycling characteristics as inferred from plant and soil¹⁵N:¹⁴N measurements. Plant Ecology and Diversity, 2014, 7, 173-187.	2.4	43
70	Evolutionary heritage influences Amazon tree ecology. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161587.	2.6	43
71	The persistence of carbon in the African forest understory. Nature Plants, 2019, 5, 133-140.	9.3	41
72	Representation of fire, land-use change and vegetation dynamics in the Joint UK Land Environment Simulator vn4.9 (JULES). Geoscientific Model Development, 2019, 12, 179-193.	3.6	41

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73	Using learning networks to understand complex systems: a case study of biological, geophysical and social research in the Amazon. Biological Reviews, 2011, 86, 457-474.	10.4	39
74	Development of Forest Structure and Leaf Area in Secondary Forests Regenerating on Abandoned Pastures in Central AmazÃ´nia. Earth Interactions, 2005, 9, 1-22.	1.5	38
75	Resistance of African tropical forests to an extreme climate anomaly. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	37
76	Tree diversity and above-ground biomass in the South America Cerrado biome and their conservation implications. Biodiversity and Conservation, 2020, 29, 1519-1536.	2.6	36
77	Evolutionary diversity is associated with wood productivity in Amazonian forests. Nature Ecology and Evolution, 2019, 3, 1754-1761.	7.8	32
78	Comment on â€˜A first map of tropical Africaâ€™s above-ground biomass derived from satellite imageryâ€™. Environmental Research Letters, 2011, 6, 049001.	5.2	31
79	Amazon Basin forest pyrogenic carbon stocks: First estimate of deep storage. Geoderma, 2017, 306, 237-243.	5.1	29
80	Rarity of monodominance in hyperdiverse Amazonian forests. Scientific Reports, 2019, 9, 13822.	3.3	28
81	Legacy of Amazonian Dark Earth soils on forest structure and species composition. Global Ecology and Biogeography, 2020, 29, 1458-1473.	5.8	28
82	El NiÃ±o Driven Changes in Global Fire 2015/16. Frontiers in Earth Science, 2020, 8, .	1.8	28
83	Relationships of S-Band Radar Backscatter and Forest Aboveground Biomass in Different Forest Types. Remote Sensing, 2017, 9, 1116.	4.0	27
84	Pantropical variability in tree crown allometry. Global Ecology and Biogeography, 2021, 30, 459-475.	5.8	27
85	Amazon tree dominance across forest strata. Nature Ecology and Evolution, 2021, 5, 757-767.	7.8	27
86	Biome-specific effects of nitrogen and phosphorus on the photosynthetic characteristics of trees at a forest-savanna boundary in Cameroon. Oecologia, 2015, 178, 659-672.	2.0	25
87	Biomass, harvestable area, and forest structure estimated from commercial timber inventories and remotely sensed imagery in southern Amazonia. Forest Ecology and Management, 2006, 233, 121-132.	3.2	24
88	Water-use efficiency of tree species following calcium and phosphorus application on an abandoned pasture, central Amazonia, Brazil. Environmental and Experimental Botany, 2008, 64, 189-195.	4.2	24
89	Foliar trait contrasts between African forest and savanna trees: genetic versus environmental effects. Functional Plant Biology, 2015, 42, 63.	2.1	23
90	Fire Effects on Understory Forest Regeneration in Southern Amazonia. Frontiers in Forests and Global Change, 2020, 3, .	2.3	23

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91	Patterns of late-season photosynthate movement in sugar maple saplings. Canadian Journal of Forest Research, 2009, 39, 2294-2298.	1.7	22
92	Aboveground forest biomass varies across continents, ecological zones and successional stages: refined IPCC default values for tropical and subtropical forests. Environmental Research Letters, 2022, 17, 014047.	5.2	21
93	Calibrating the liana crown occupancy index in Amazonian forests. Forest Ecology and Management, 2010, 260, 549-555.	3.2	20
94	Diversity, floristic composition, and structure of the woody vegetation of the Cerrado in the Cerradoâ€"Amazon transition zone in Mato Grosso, Brazil. Revista Brasileira De Botanica, 2015, 38, 877-887.	1.3	20
95	Soil-induced impacts on forest structure drive coarse woody debris stocks across central Amazonia. Plant Ecology and Diversity, 2015, 8, 229-241.	2.4	20
96	The influence of C₃ and C₄ vegetation on soil organic matter dynamics in contrasting semi-natural tropical ecosystems. Biogeosciences, 2015, 12, 5041-5059.	3.3	19
97	Savanna turning into forest: concerted vegetation change at the ecotone between the Amazon and â€œCerradoâ€• biomes. Revista Brasileira De Botanica, 2018, 41, 611-619.	1.3	19
98	Individual-Based Modeling of Amazon Forests Suggests That Climate Controls Productivity While Traits Control Demography. Frontiers in Earth Science, 2019, 7, .	1.8	19
99	Impacts of Fire on Forest Biomass Dynamics at the Southern Amazon Edge. Environmental Conservation, 2019, 46, 285-292.	1.3	18
100	Water table depth modulates productivity and biomass across Amazonian forests. Global Ecology and Biogeography, 2022, 31, 1571-1588.	5.8	17
101	Ecology of Floodplain <i>Campos de Murundus</i> Savanna in Southern Amazonia. International Journal of Plant Sciences, 2015, 176, 670-681.	1.3	16
102	Post-fire dynamics of the woody vegetation of a savanna forest (CerradÃ£o) in the Cerrado-Amazon transition zone. Acta Botanica Brasilica, 2015, 29, 408-416.	0.8	16
103	EficiÃªncia no uso dos nutrientes por espÃ©cies pioneiras crescidas em pastagens degradadas na AmazÃ´nia central. Acta Amazonica, 2006, 36, 503-512.	0.7	16
104	Post-fire dynamics of woody vegetation in seasonally flooded forests (impucas) in the Cerrado-Amazonian Forest transition zone. Flora: Morphology, Distribution, Functional Ecology of Plants, 2014, 209, 260-270.	1.2	15
105	Patterns of tree species composition at watershed-scale in the Amazon â€˜arc of deforestationâ€™: implications for conservation. Environmental Conservation, 2016, 43, 317-326.	1.3	14
106	Charcoal chronology of the Amazon forest: A record of biodiversity preserved by ancient fires. Quaternary Geochronology, 2017, 41, 180-186.	1.4	14
107	What controls local-scale aboveground biomass variation in central Africa? Testing structural, composition and architectural attributes. Forest Ecology and Management, 2018, 429, 570-578.	3.2	14
108	Causes and consequences of liana infestation in southern Amazonia. Journal of Ecology, 2020, 108, 2184-2197.	4.0	13

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109	Climate and fragmentation affect forest structure at the southern border of Amazonia. Plant Ecology and Diversity, 2018, 11, 13-25.	2.4	12
110	Soil water-holding capacity and monodominance in Southern Amazon tropical forests. Plant and Soil, 2020, 450, 65-79.	3.7	12
111	Expanding tropical forest monitoring into Dry Forests: The DRYFLOR protocol for permanent plots. Plants People Planet, 2021, 3, 295-300.	3.3	12
112	Climate and crown damage drive tree mortality in southern Amazonian edge forests. Journal of Ecology, 2022, 110, 876-888.	4.0	12
113	Drought generates large, long-term changes in tree and liana regeneration in a monodominant Amazon forest. Plant Ecology, 2020, 221, 733-747.	1.6	10
114	Nitrogen aboveground turnover and soil stocks to 8â€ƒm depth in primary and selectively logged forest in southern Amazonia. Global Change Biology, 2010, 16, 1793-1805.	9.5	9
115	Diversity, abundance and distribution of lianas of the Cerradoâ€"Amazonian forest transition, Brazil. Plant Ecology and Diversity, 2014, 7, 231-240.	2.4	9
116	MODIS Vegetation Continuous Fields tree cover needs calibrating in tropical savannas. Biogeosciences, 2022, 19, 1377-1394.	3.3	7
117	Forest Fire History in Amazonia Inferred From Intensive Soil Charcoal Sampling and Radiocarbon Dating. Frontiers in Forests and Global Change, 2022, 5, .	2.3	6
118	Does soil pyrogenic carbon determine plant functional traits in Amazon Basin forests?. Plant Ecology, 2017, 218, 1047-1062.	1.6	5
119	Tracing carbon flow through a sugar maple forest and its soil components: role of invasive earthworms. Plant and Soil, 2021, 464, 517-537.	3.7	5
120	Variation in soil carbon stocks and their determinants across a precipitation gradient in West Africa. Global Change Biology, 2012, 18, 2676-2676.	9.5	2
121	Legacy of Fire Slows Carbon Accumulation in Amazonian Forest Regrowth. Frontiers in Ecology and the Environment, 2005, 3, 365.	4.0	1
122	Climate defined but not soil-restricted: the distribution of a Neotropical tree through space and time. Plant and Soil, 2022, 471, 175-191.	3.7	0
123	Primary modes of tree mortality in southwestern Amazon forests. Trees, Forests and People, 2022, 7, 100180.	1.9	0