Christopher Baraloto

List of Publications by Year
in descending order

136 papers	16,046 citations	24978 57 h-index	18075 120 g-index
142 all docs	142 docs citations	142 times ranked	18313 citing authors

#	Article	IF	Citations
1	The global spectrum of plant form and function. Nature, 2016, 529, 167-171.	13.7	2,022
2	Hyperdominance in the Amazonian Tree Flora. Science, 2013, 342, 1243092.	6.0	873
3	Positive biodiversity-productivity relationship predominant in global forests. Science, 2016, 354, .	6.0	864
4	Long-term decline of the Amazon carbon sink. Nature, 2015, 519, 344-348.	13.7	796
5	A global metaâ€analysis of the relative extent of intraspecific trait variation in plant communities. Ecology Letters, 2015, 18, 1406-1419.	3.0	768
6	Plant functional traits have globally consistent effects on competition. Nature, 2016, 529, 204-207.	13.7	655
7	Rare Species Support Vulnerable Functions in High-Diversity Ecosystems. PLoS Biology, 2013, 11, e1001569.	2.6	654
8	Persistent effects of pre-Columbian plant domestication on Amazonian forest composition. Science, 2017, 355, 925-931.	6.0	443
9	Global traitâ€“environment relationships of plant communities. Nature Ecology and Evolution, 2018, 2, 1906-1917.	3.4	397
10	Strong coupling of plant and fungal community structure across western Amazonian rainforests. ISME Journal, 2013, 7, 1852-1861.	4.4	333
11	Decoupled leaf and stem economics in rain forest trees. Ecology Letters, 2010, 13, 1338-1347.	3.0	312
12	Rare species contribute disproportionately to the functional structure of species assemblages. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160084.	1.2	277
13	Compositional response of Amazon forests to climate change. Global Change Biology, 2019, 25, 39-56.	4.2	265
14	Diversity and carbon storage across the tropical forest biome. Scientific Reports, 2017, 7, 39102.	1.6	251
15	Hyperdominance in Amazonian forest carbon cycling. Nature Communications, 2015, 6, 6857.	5.8	214
16	Contributions of a global network of tree diversity experiments to sustainable forest plantations. Ambio, 2016, 45, 29-41.	2.8	203
17	Amazon forest response to repeated droughts. Global Biogeochemical Cycles, 2016, 30, 964-982.	1.9	201
18	Long-term thermal sensitivity of Earthâ€™s tropical forests. Science, 2020, 368, 869-874.	6.0	198

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19	Using functional traits and phylogenetic trees to examine the assembly of tropical tree communities. Journal of Ecology, 2012, 100, 690-701.	1.9	191
20	sPlot â€“ A new tool for global vegetation analyses. Journal of Vegetation Science, 2019, 30, 161-186.	1.1	185
21	Functional traits shape ontogenetic growth trajectories of rain forest tree species. Journal of Ecology, 2011, 99, 1431-1440.	1.9	180
22	Identification of Amazonian Trees with DNA Barcodes. PLoS ONE, 2009, 4, e7483.	1.1	176
23	Leaf, stem and root tissue strategies across 758 <scp>N</scp>eotropical tree species. Functional Ecology, 2012, 26, 1153-1161.	1.7	172
24	Disentangling stand and environmental correlates of aboveground biomass in Amazonian forests. Global Change Biology, 2011, 17, 2677-2688.	4.2	160
25	Seed mass, seedling size and neotropical tree seedling establishment. Journal of Ecology, 2005, 93, 1156-1166.	1.9	155
26	Assessing foliar chlorophyll contents with the SPAD-502 chlorophyll meter: a calibration test with thirteen tree species of tropical rainforest in French Guiana. Annals of Forest Science, 2010, 67, 607-607.	0.8	153
27	Drought tolerance as predicted by leaf water potential at turgor loss point varies strongly across species within an Amazonian forest. Functional Ecology, 2015, 29, 1268-1277.	1.7	151
28	Functional trait variation and sampling strategies in speciesâ€rich plant communities. Functional Ecology, 2010, 24, 208-216.	1.7	147
29	PERFORMANCE TRADE-OFFS AMONG TROPICAL TREE SEEDLINGS IN CONTRASTING MICROHABITATS. Ecology, 2005, 86, 2461-2472.	1.5	135
30	Environmental factors predict community functional composition in <scp>A</scp>mazonian forests. Journal of Ecology, 2014, 102, 145-155.	1.9	132
31	Globally, functional traits are weak predictors of juvenile tree growth, and we do not know why. Journal of Ecology, 2015, 103, 978-989.	1.9	131
32	Functional traits of individual trees reveal ecological constraints on community assembly in tropical rain forests. Oikos, 2011, 120, 720-727.	1.2	124
33	BAAD: a Biomass And Allometry Database for woody plants. Ecology, 2015, 96, 1445-1445.	1.5	122
34	Estimating the global conservation status of more than 15,000 Amazonian tree species. Science Advances, 2015, 1, e1500936.	4.7	122
35	Functional explanations for variation in bark thickness in tropical rain forest trees. Functional Ecology, 2010, 24, 1202-1210.	1.7	121
36	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.	4.2	116

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37	Species Distribution Modelling: Contrasting presence-only models with plot abundance data. Scientific Reports, 2018, 8, 1003.	1.6	113
38	Dynamics of aboveground carbon stocks in a selectively logged tropical forest. Ecological Applications, 2009, 19, 1397-1404.	1.8	108
39	Phylogenetic density dependence and environmental filtering predict seedling mortality in a tropical forest. Ecology Letters, 2012, 15, 34-41.	3.0	106
40	A methodology to derive global maps of leaf traits using remote sensing and climate data. Remote Sensing of Environment, 2018, 218, 69-88.	4.6	104
41	Contrasting taxonomic and functional responses of a tropical tree community to selective logging. Journal of Applied Ecology, 2012, 49, 861-870.	1.9	102
42	Carbon uptake by mature Amazon forests has mitigated Amazon nationsâ€™ carbon emissions. Carbon Balance and Management, 2017, 12, 1.	1.4	98
43	Coordination and tradeâ€offs among hydraulic safety, efficiency and drought avoidance traits in Amazonian rainforest canopy tree species. New Phytologist, 2018, 218, 1015-1024.	3.5	97
44	Insect herbivores, chemical innovation, and the evolution of habitat specialization in Amazonian trees. Ecology, 2013, 94, 1764-1775.	1.5	91
45	Wood specific gravity and anatomy of branches and roots in 113 <scp>A</scp>mazonian rainforest tree species across environmental gradients. New Phytologist, 2014, 202, 79-94.	3.5	89
46	Rapid tree carbon stock recovery in managed Amazonian forests. Current Biology, 2015, 25, R787-R788.	1.8	88
47	Quantifying the importance of local nicheâ€based and stochastic processes to tropical tree community assembly. Ecology, 2012, 93, 760-769.	1.5	86
48	Branch xylem density variations across the Amazon Basin. Biogeosciences, 2009, 6, 545-568.	1.3	84
49	Nutrient-cycling mechanisms other than the direct absorption from soil may control forest structure and dynamics in poor Amazonian soils. Scientific Reports, 2017, 7, 45017.	1.6	76
50	Rapid Simultaneous Estimation of Aboveground Biomass and Tree Diversity Across Neotropical Forests: A Comparison of Field Inventory Methods. Biotropica, 2013, 45, 288-298.	0.8	73
51	Seed size, seedling morphology, and response to deep shade and damage in neotropical rain forest trees. American Journal of Botany, 2007, 94, 901-911.	0.8	72
52	Growth responses of neotropical trees to logging gaps. Journal of Applied Ecology, 2010, 47, 821-831.	1.9	72
53	Phylogenetic diversity of Amazonian tree communities. Diversity and Distributions, 2015, 21, 1295-1307.	1.9	72
54	SEASONAL WATER STRESS TOLERANCE AND HABITAT ASSOCIATIONS WITHIN FOUR NEOTROPICAL TREE GENERA. Ecology, 2007, 88, 478-489.	1.5	68

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55	Diversity of the Volatile Organic Compounds Emitted by 55 Species of Tropical Trees: a Survey in French Guiana. Journal of Chemical Ecology, 2009, 35, 1349-1362.	0.9	67
56	Shifts in species and phylogenetic diversity between sapling and tree communities indicate negative density dependence in a lowland rain forest. Journal of Ecology, 2010, 98, 137-146.	1.9	64
57	Habitat Endemism in Whiteâ€sand Forests: Insights into the Mechanisms of Lineage Diversification and Community Assembly of the Neotropical Flora. Biotropica, 2016, 48, 24-33.	0.8	64
58	Tree mode of death and mortality risk factors across Amazon forests. Nature Communications, 2020, 11, 5515.	5.8	62
59	Modeling decay rates of dead wood in a neotropical forest. Oecologia, 2010, 164, 243-251.	0.9	57
60	Trans-boundary infrastructure and land cover change: Highway paving and community-level deforestation in a tri-national frontier in the Amazon. Land Use Policy, 2013, 34, 27-41.	2.5	54
61	Biased-corrected richness estimates for the Amazonian tree flora. Scientific Reports, 2020, 10, 10130.	1.6	53
62	Low Phylogenetic Beta Diversity and Geographic Neoâ€endemism in Amazonian Whiteâ€sand Forests. Biotropica, 2016, 48, 34-46.	0.8	52
63	Maximising Synergy among Tropical Plant Systematists, Ecologists, and Evolutionary Biologists. Trends in Ecology and Evolution, 2017, 32, 258-267.	4.2	52
64	Herbivory, growth rates, and habitat specialization in tropical tree lineages: implications for Amazonian betaâ€diversity. Ecology, 2012, 93, S195.	1.5	51
65	Differential seedling growth response to soil resource availability among nine neotropical tree species. Journal of Tropical Ecology, 2006, 22, 487-497.	0.5	48
66	Microhabitat associations and seedling bank dynamics in a neotropical forest. Oecologia, 2004, 141, 701-712.	0.9	47
67	The decomposition of Shannon's entropy and a confidence interval for beta diversity. Oikos, 2012, 121, 516-522.	1.2	47
68	The Tropical managed Forests Observatory: a research network addressing the future of tropical logged forests. Applied Vegetation Science, 2015, 18, 171-174.	0.9	47
69	Carbon recovery dynamics following disturbance by selective logging in Amazonian forests. ELife, 2016, 5, .	2.8	45
70	Evolutionary heritage influences Amazon tree ecology. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161587.	1.2	43
71	A comparison of two common flight interception traps to survey tropical arthropods. ZooKeys, 2012, 216, 43-55.	0.5	41
72	Pervasive Local-Scale Tree-Soil Habitat Association in a Tropical Forest Community. PLoS ONE, 2015, 10, e0141488.	1.1	40

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73	Ecological limitations of reduced-impact logging at the smallholder scale. Forest Ecology and Management, 2007, 238, 365-374.	1.4	35
74	Resolving wholeâ€plant economics from leaf, stem and root traits of 1467 Amazonian tree species. Oikos, 2021, 130, 1193-1208.	1.2	35
75	A comparison of five indirect methods for characterizing the light environment in a tropical forest. Annals of Forest Science, 2001, 58, 877-891.	0.8	34
76	Fineâ€scale Microhabitat Heterogeneity in a French Guianan Forest. Biotropica, 2010, 42, 420-428.	0.8	33
77	Within-individual variation of trunk and branch xylem density in tropical trees. American Journal of Botany, 2011, 98, 140-149.	0.8	33
78	Differences in volatile terpene composition between the bark and leaves of tropical tree species. Phytochemistry, 2012, 82, 81-88.	1.4	32
79	Logging in bamboo-dominated forests in southwestern Amazonia: Caveats and opportunities for smallholder forest management. Forest Ecology and Management, 2014, 315, 202-210.	1.4	32
80	Evolutionary patterns of volatile terpene emissions across 202 tropical tree species. Ecology and Evolution, 2016, 6, 2854-2864.	0.8	32
81	Evolutionary diversity is associated with wood productivity in Amazonian forests. Nature Ecology and Evolution, 2019, 3, 1754-1761.	3.4	32
82	Habitats shape taxonomic and functional composition of Neotropical ant assemblages. Oecologia, 2019, 189, 501-513.	0.9	30
83	Future crop tree damage in a certified community forest in southwestern Amazonia. Forest Ecology and Management, 2007, 242, 108-118.	1.4	28
84	Rarity of monodominance in hyperdiverse Amazonian forests. Scientific Reports, 2019, 9, 13822.	1.6	28
85	Interdependency of plants and animals in controlling the sodium balance of ecosystems and the impacts of global defaunation. Ecography, 2016, 39, 204-212.	2.1	27
86	Amazon tree dominance across forest strata. Nature Ecology and Evolution, 2021, 5, 757-767.	3.4	27
87	Estimating tropical tree diversity indices from forestry surveys: A method to integrate taxonomic uncertainty. Forest Ecology and Management, 2014, 328, 270-281.	1.4	25
88	Leaf synchrony and insect herbivory among tropical tree habitat specialists. Plant Ecology, 2014, 215, 209-220.	0.7	25
89	Taxonomic and functional composition of arthropod assemblages across contrasting Amazonian forests. Journal of Animal Ecology, 2016, 85, 227-239.	1.3	25
90	Imaging spectroscopy predicts variable distance decay across contrasting Amazonian tree communities. Journal of Ecology, 2019, 107, 696-710.	1.9	25

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91	Toward Trait-Based Mortality Models for Tropical Forests. PLoS ONE, 2013, 8, e63678.	1.1	24
92	Divergent Secondary Metabolites and Habitat Filtering Both Contribute to Tree Species Coexistence in the Peruvian Amazon. Frontiers in Plant Science, 2018, 9, 836.	1.7	24
93	Traitâ€based community assembly pattern along a forest succession gradient in a seasonally dry tropical forest. Ecosphere, 2019, 10, e02719.	1.0	24
94	Independent evolutionary changes in fineâ€root traits among main clades during the diversification of seed plants. New Phytologist, 2020, 228, 541-553.	3.5	24
95	There's no place like home: seedling mortality contributes to the habitat specialisation of tree species across Amazonia. Ecology Letters, 2016, 19, 1256-1266.	3.0	23
96	Dominant tree species drive beta diversity patterns in western Amazonia. Ecology, 2019, 100, e02636.	1.5	23
97	Disentangling the effects of environment and ontogeny on tree functional dimensions for congeneric species in tropical forests. New Phytologist, 2020, 226, 385-395.	3.5	23
98	Limitations and Applications of Parataxonomy for Community Forest Management in Southwestern Amazonia. Ethnobotany Research and Applications, 0, 5, 077.	0.3	23
99	Intraspecific leaf trait variability along a boreal-to-tropical community diversity gradient. PLoS ONE, 2017, 12, e0172495.	1.1	20
100	A trait database for Guianan rain forest trees permits intra- and inter-specific contrasts. Annals of Forest Science, 2007, 64, 781-786.	0.8	19
101	Optimal strategies for sampling functional traits in speciesâ€rich forests. Functional Ecology, 2015, 29, 1325-1331.	1.7	19
102	Geographical Variation in Community Divergence: Insights from Tropical Forest Monodominance by Ectomycorrhizal Trees. American Naturalist, 2017, 190, S105-S122.	1.0	19
103	Surprising low diversity of the plant pathogen Phytophthora in Amazonian forests. Environmental Microbiology, 2020, 22, 5019-5032.	1.8	17
104	Are Commonly Measured Functional Traits Involved in Tropical Tree Responses to Climate?. International Journal of Ecology, 2014, 2014, 1-10.	0.3	16
105	Effects of road infrastructure on forest value across a tri-national Amazonian frontier. Biological Conservation, 2015, 191, 674-681.	1.9	16
106	Botanic gardens are an untapped resource for studying the functional ecology of tropical plants. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20170390.	1.8	16
107	Quantifying Tropical Plant Diversity Requires an Integrated Technological Approach. Trends in Ecology and Evolution, 2020, 35, 1100-1109.	4.2	16
108	Coordinated community structure amongÂtrees, fungi and invertebrate groups in Amazonian rainforests. Scientific Reports, 2019, 9, 11337.	1.6	15

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109	Integrating functional diversity into tropical forest plantation designs to study ecosystem processes. Annals of Forest Science, 2010, 67, 303-303.	0.8	14
110	Trade-offs among forest value components in community forests of southwestern Amazonia. Ecology and Society, 2014, 19, .	1.0	14
111	Precipitation mediates sap flux sensitivity to evaporative demand in the neotropics. Oecologia, 2019, 191, 519-530.	0.9	14
112	Evidence of elemental homeostasis in fine root and leaf tissues of saplings across a fertility gradient in tropical montane forest in Hainan, China. Plant and Soil, 2021, 460, 625-646.	1.8	13
113	Revisiting the hyperdominance of Neotropical tree species under a taxonomic, functional and evolutionary perspective. Scientific Reports, 2021, 11, 9585.	1.6	13
114	Relative Efficiency of Pitfall Trapping vs. Nocturnal Hand Collecting in Assessing Soil-Dwelling Spider Diversity along A Structural Gradient of Neotropical Habitats. Diversity, 2020, 12, 81.	0.7	12
115	Understanding the recruitment response of juvenile Neotropical trees to logging intensity using functional traits. Ecological Applications, 2018, 28, 1998-2010.	1.8	11
116	Root anatomy helps to reconcile observed root trait syndromes in tropical tree species. American Journal of Botany, 2021, 108, 744-755.	0.8	11
117	At each site its diversity: DNA barcoding reveals remarkable earthworm diversity in neotropical rainforests of French Guiana. Applied Soil Ecology, 2021, 164, 103932.	2.1	11
118	Economically important species dominate aboveground carbon storage in forests of southwestern Amazonia. Ecology and Society, 2017, 22, .	1.0	10
119	Biogeographic history and habitat specialization shape floristic and phylogenetic composition across Amazonian forests. Ecological Monographs, 2021, 91, e01473.	2.4	10
120	Phylogenetic Overdispersion in Lepidoptera Communities of Amazonian Whiteâ€sand Forests. Biotropica, 2016, 48, 101-109.	0.8	9
121	Morphological variation of fine root systems and leaves in primary and secondary tropical forests of Hainan Island, China. Annals of Forest Science, 2020, 77, 1.	0.8	9
122	Rapid tree carbon stock recovery in managed Amazonian forests. Current Biology, 2015, 25, 2738.	1.8	6
123	A spatiotemporal natural-human database to evaluate road development impacts in an Amazon trinational frontier. Scientific Data, 2019, 6, 93.	2.4	6
124	Evidence for traitâ€based community assembly patterns in hardwood hammock forests. Ecosphere, 2019, 10, e02956.	1.0	6
125	GuiaTreeKey, a multi-access electronic key to identify tree genera in French Guiana. PhytoKeys, 2016, 68, 27-44.	0.4	6
126	The Amazonasâ€trap: a new method for sampling plantâ€inhabiting arthropod communities in tropical forest understory. Entomologia Experimentalis Et Applicata, 2019, 167, 534-543.	0.7	5

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127	The physiological acclimation and growth response of Populus trichocarpa to warming. Physiologia Plantarum, 2021, 173, 1008-1029.	2.6	5
128	Day-time vs. night-time sampling does not affect estimates of spider diversity across a land use gradient in the Neotropics. Journal of Arachnology, 2015, 43, 413-416.	0.3	4
129	Fungi of French Guiana gathered in a taxonomic, environmental and molecular dataset. Scientific Data, 2019, 6, 206.	2.4	4
130	Tree communities and soil properties influence fungal community assembly in neotropical forests. Biotropica, 2020, 52, 444-456.	0.8	4
131	Is climate a stronger driver of tree growth than disturbance? A comment on Toledo etÂal. (2011). Journal of Ecology, 2012, 100, 1065-1068.	1.9	3
132	Nouvelles connaissances sur la dynamique globale de la biomasse aprÃ¨s exploitation en forÃªt nord amazonienne. Bois Et Forets Des Tropiques, 2012, 314, 41.	0.2	3
133	RÃ©gÃ©nÃ©ration forestiÃ¨re naturelle : de la graine Ã la jeune tige.. Revue Forestiere Francaise, 2003, , 179.	0.0	2
134	Environmental determinants of leaf litter ant community composition along an elevational gradient. Biotropica, 2021, 53, 97-109.	0.8	2
135	Scientists and Stakeholders, Data and Diagnostics: Crossing Boundaries for Modeling the Impacts of Highway Paving in a Tri-national Frontier in the Amazon. , 2019, , 327-359.		2
136	The water relations of two tropical rainforest species (Virola surinamensis and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td Hydraulics, 0, 1, e002.	1.0	2