Helene C Muller-Landau

List of Publications by Year
in descending order

118 papers	16,785 citations	28190 55 h-index	21474 114 g-index
127 all docs	127 docs citations	127 times ranked	15208 citing authors

#	Article	IF	Citations
1	Improved allometric models to estimate the aboveground biomass of tropical trees. Global Change Biology, 2014, 20, 3177-3190.	4.2	1,712
2	Spatial patterns of seed dispersal, their determinants and consequences for recruitment. Trends in Ecology and Evolution, 2000, 15, 278-285.	4.2	1,620
3	Beta-Diversity in Tropical Forest Trees. Science, 2002, 295, 666-669.	6.0	1,176
4	The Ecology and Evolution of Seed Dispersal: A Theoretical Perspective. Annual Review of Ecology, Evolution, and Systematics, 2003, 34, 575-604.	3.8	653
5	REGIONAL AND PHYLOGENETIC VARIATION OF WOOD DENSITY ACROSS 2456 NEOTROPICAL TREE SPECIES. , 2006, 16, 2356-2367.		632
6	Comparing Classical Community Models: Theoretical Consequences for Patterns of Diversity. American Naturalist, 2002, 159, 1-23.	1.0	552
7	Asymmetric Density Dependence Shapes Species Abundances in a Tropical Tree Community. Science, 2010, 329, 330-332.	6.0	551
8	Vegetation demographics in Earth System Models: A review of progress and priorities. Global Change Biology, 2018, 24, 35-54.	4.2	478
9	<scp>CTFS</scp>â€Forest<scp>GEO</scp>: a worldwide network monitoring forests in an era of global change. Global Change Biology, 2015, 21, 528-549.	4.2	473
10	The Future of Tropical Forest Species1. Biotropica, 2006, 38, 287-301.	0.8	382
11	Drivers and mechanisms of tree mortality in moist tropical forests. New Phytologist, 2018, 219, 851-869.	3.5	341
12	Interspecific and Inter-site Variation in Wood Specific Gravity of Tropical Trees. Biotropica, 2004, 36, 20-32.	0.8	323
13	Relationships Among Ecologically Important Dimensions of Plant Trait Variation in Seven Neotropical Forests. Annals of Botany, 2007, 99, 1003-1015.	1.4	317
14	A universal airborne LiDAR approach for tropical forest carbon mapping. Oecologia, 2012, 168, 1147-1160.	0.9	317
15	GAP-DEPENDENT RECRUITMENT, REALIZED VITAL RATES, AND SIZE DISTRIBUTIONS OF TROPICAL TREES. Ecology, 2003, 84, 3174-3185.	1.5	312
16	The toleranceâ€“fecundity trade-off and the maintenance of diversity in seed size. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4242-4247.	3.3	307
17	Interspecific variation in primary seed dispersal in a tropical forest. Journal of Ecology, 2008, 96, 653-667.	1.9	299
18	Testing metabolic ecology theory for allometric scaling of tree size, growth and mortality in tropical forests. Ecology Letters, 2006, 9, 575-588.	3.0	280

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19	Scaleâ€dependent relationships between tree species richness and ecosystem function in forests. Journal of Ecology, 2013, 101, 1214-1224.	1.9	265
20	ANNUAL AND SPATIAL VARIATION IN SEEDFALL AND SEEDLING RECRUITMENT IN A NEOTROPICAL FOREST. Ecology, 2005, 86, 848-860.	1.5	198
21	Evaluating uncertainty in mapping forest carbon with airborne LiDAR. Remote Sensing of Environment, 2011, 115, 3770-3774.	4.6	194
22	Assessing Evidence for a Pervasive Alteration in Tropical Tree Communities. PLoS Biology, 2008, 6, e45.	2.6	187
23	The Future of Tropical Species on a Warmer Planet. Conservation Biology, 2009, 23, 1418-1426.	2.4	184
24	Measuring tree height: a quantitative comparison of two common field methods in a moist tropical forest. Methods in Ecology and Evolution, 2013, 4, 793-801.	2.2	180
25	Comparing tropical forest tree size distributions with the predictions of metabolic ecology and equilibrium models. Ecology Letters, 2006, 9, 589-602.	3.0	170
26	Nonrandom Processes Maintain Diversity in Tropical Forests. Science, 2006, 311, 527-531.	6.0	166
27	The Plight of Large Animals in Tropical Forests and the Consequences for Plant Regeneration. Biotropica, 2007, 39, 289-291.	0.8	153
28	Functional traits as predictors of vital rates across the life cycle of tropical trees. Functional Ecology, 2016, 30, 168-180.	1.7	152
29	Rethinking the value of high wood density. Functional Ecology, 2010, 24, 701-705.	1.7	151
30	LIFE HISTORY TRADE-OFFS IN TROPICAL TREES AND LIANAS. Ecology, 2006, 87, 1281-1288.	1.5	144
31	Annual Rainfall and Seasonality Predict Panâ€tropical Patterns of Liana Density and Basal Area. Biotropica, 2010, 42, 309-317.	0.8	134
32	Carbon stocks in primary and secondary tropical forests in Singapore. Forest Ecology and Management, 2013, 296, 81-89.	1.4	129
33	SAMPLING THE SPECIES COMPOSITION OF A LANDSCAPE. Ecology, 2002, 83, 3344-3356.	1.5	128
34	ForestGEO: Understanding forest diversity and dynamics through a global observatory network. Biological Conservation, 2021, 253, 108907.	1.9	122
35	High-fidelity national carbon mapping for resource management and REDD+. Carbon Balance and Management, 2013, 8, 7.	1.4	104
36	Predicting the Long-Term Effects of Hunting on Plant Species Composition and Diversity in Tropical Forests. Biotropica, 2007, 39, 372-384.	0.8	100

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37	Understanding strategies for seed dispersal by wind under contrasting atmospheric conditions. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19084-19089.	3.3	99
38	The Uncertain Future of Tropical Forest Species1. Biotropica, 2006, 38, 443-445.	0.8	91
39	When do localized natural enemies increase species richness?. Ecology Letters, 2005, 8, 438-447.	3.0	89
40	Local spatial structure of forest biomass and its consequences for remote sensing of carbon stocks. Biogeosciences, 2014, 11, 6827-6840.	1.3	89
41	Functional composition drives ecosystem function through multiple mechanisms in a broadleaved subtropical forest. Oecologia, 2016, 182, 829-840.	0.9	89
42	Negative density dependence of seed dispersal and seedling recruitment in a Neotropical palm. Ecology Letters, 2014, 17, 1111-1120.	3.0	84
43	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
44	Resource acquisition and reproductive strategies of tropical forest in response to the El NiÃ±oâ€“Southern Oscillation. Nature Communications, 2018, 9, 913.	5.8	80
45	Space, time and complexity in plant dispersal ecology. Movement Ecology, 2014, 2, 16.	1.3	77
46	Quantifying Leaf Phenology of Individual Trees and Species in a Tropical Forest Using Unmanned Aerial Vehicle (UAV) Images. Remote Sensing, 2019, 11, 1534.	1.8	74
47	Positive effects of neighborhood complementarity on tree growth in a Neotropical forest. Ecology, 2016, 97, 776-785.	1.5	73
48	Role of tree size in moist tropical forest carbon cycling and water deficit responses. New Phytologist, 2018, 219, 947-958.	3.5	73
49	Seed dispersal of woody plants in tropical forests: concepts, examples and future directions. , 2005, , 267-309.		70
50	SEED DISPERSAL OF DESERT ANNUALS. Ecology, 2008, 89, 2218-2227.	1.5	68
51	The Roots of Diversity: Below Ground Species Richness and Rooting Distributions in a Tropical Forest Revealed by DNA Barcodes and Inverse Modeling. PLoS ONE, 2011, 6, e24506.	1.1	67
52	Differential Effects of Hunting on Pre-Dispersal Seed Predation and Primary and Secondary Seed Removal of Two Neotropical Tree Species. Biotropica, 2007, 39, 328-339.	0.8	65
53	THEORETICAL PERSPECTIVES ON EVOLUTION OF LONG-DISTANCE DISPERSAL AND THE EXAMPLE OF SPECIALIZED PESTS. Ecology, 2003, 84, 1957-1967.	1.5	64
54	Spatial variability in tropical forest leaf area density from multireturn lidar and modeling. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 294-309.	1.3	61

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55	Hydrological Networks and Associated Topographic Variation as Templates for the Spatial Organization of Tropical Forest Vegetation. PLoS ONE, 2013, 8, e76296.	1.1	61
56	Topographic Variation in Aboveground Biomass in a Subtropical Evergreen Broad-Leaved Forest in China. PLoS ONE, 2012, 7, e48244.	1.1	60
57	Temperature explains global variation in biomass among humid oldâ€growth forests. Global Ecology and Biogeography, 2012, 21, 998-1006.	2.7	59
58	Dissecting biomass dynamics in a large Amazonian forest plot. Journal of Tropical Ecology, 2009, 25, 473-482.	0.5	56
59	Tree species vary widely in their tolerance for liana infestation: A case study of differential host response to generalist parasites. Journal of Ecology, 2018, 106, 781-794.	1.9	53
60	Droughtâ€induced mortality patterns and rapid biomass recovery in a terra firme forest in the Colombian Amazon. Ecology, 2017, 98, 2538-2546.	1.5	52
61	Largeâ€scale spatial variation in palm fruit abundance across a tropical moist forest estimated from highâ€resolution aerial photographs. Ecography, 2008, 31, 33-42.	2.1	50
62	Signs of stabilisation and stable coexistence. Ecology Letters, 2019, 22, 1957-1975.	3.0	48
63	Patterns and mechanisms of spatial variation in tropical forest productivity, woody residence time, and biomass. New Phytologist, 2021, 229, 3065-3087.	3.5	48
64	Tri-trophic interactions affect density dependence of seed fate in a tropical forest palm. Ecology Letters, 2011, 14, 1093-1100.	3.0	46
65	A theoretical model linking interspecific variation in density dependence to species abundances. Theoretical Ecology, 2011, 4, 241-253.	0.4	46
66	The interacting effects of clumped seed dispersal and distanceâ€and densityâ€dependent mortality on seedling recruitment patterns. Journal of Ecology, 2012, 100, 862-873.	1.9	46
67	Lightning is a major cause of large tree mortality in a lowland neotropical forest. New Phytologist, 2020, 225, 1936-1944.	3.5	46
68	Improving estimates of biomass change in buttressed trees using tree taper models. Methods in Ecology and Evolution, 2014, 5, 573-582.	2.2	45
69	Tree diversity, tree height and environmental harshness in eastern and western North America. Ecology Letters, 2016, 19, 743-751.	3.0	43
70	Comment on "From Plant Traits to Plant Communities: A Statistical Mechanistic Approach to Biodiversity". Science, 2007, 316, 1425c-1425c.	6.0	42
71	Comparison of decay classification, knife test, and two penetrometers for estimating wood density of coarse woody debris. Canadian Journal of Forest Research, 2010, 40, 2313-2321.	0.8	41
72	Carbon cycling in mature and regrowth forests globally. Environmental Research Letters, 2021, 16, 053009.	2.2	41

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73	Sink in the African jungle. Nature, 2009, 457, 969-970.	13.7	40
74	Fitting Ecological Process Models to Spatial Patterns Using Scalewise Variances and Moment Equations. American Naturalist, 2013, 181, E68-E82.	1.0	40
75	Sizeâ€related scaling of tree form and function in a mixedâ€age forest. Functional Ecology, 2015, 29, 1587-1602.	1.7	39
76	Tropical tree height and crown allometries for the Barro Colorado Nature Monument, Panama: a comparison of alternative hierarchical models incorporating interspecific variation in relation to life history traits. Biogeosciences, 2019, 16, 847-862.	1.3	34
77	Seed arrival in tropical forest tree fall gaps. Ecology, 2013, 94, 1552-1562.	1.5	31
78	Leaf turgor loss point shapes local and regional distributions of evergreen but not deciduous tropical trees. New Phytologist, 2021, 230, 485-496.	3.5	30
79	Unimodal Tree Size Distributions Possibly Result from Relatively Strong Conservatism in Intermediate Size Classes. PLoS ONE, 2012, 7, e52596.	1.1	30
80	Growth and reproduction respond differently to climate in three Neotropical tree species. Oecologia, 2017, 184, 531-541.	0.9	29
81	Insights into regional patterns of Amazonian forest structure, diversity, and dominance from three large terra-firme forest dynamics plots. Biodiversity and Conservation, 2017, 26, 669-686.	1.2	29
82	Linking fruit traits to variation in predispersal vertebrate seed predation, insect seed predation, and pathogen attack. Ecology, 2011, 92, 2131-2140.	1.5	27
83	Distortedâ€distance models for directional dispersal: a general framework with application to a windâ€dispersed tree. Methods in Ecology and Evolution, 2012, 3, 642-652.	2.2	27
84	Dead Wood Necromass in a Moist Tropical Forest: Stocks, Fluxes, and Spatiotemporal Variability. Ecosystems, 2019, 22, 1189-1205.	1.6	27
85	Still rethinking the value of high wood density. American Journal of Botany, 2012, 99, 165-168.	0.8	26
86	Detecting and projecting changes in forest biomass from plot data. , 2014, , 381-416.		24
87	Allometric constraints and competition enable the simulation of size structure and carbon fluxes in a dynamic vegetation model of tropical forests (LM3PPAâ€TV). Global Change Biology, 2020, 26, 4478-4494.	4.2	24
88	Distribution of biomass dynamics in relation to tree size in forests across the world. New Phytologist, 2022, 234, 1664-1677.	3.5	24
89	Intraspecific variation in seed dispersal of a Neotropical tree and its relationship to fruit and tree traits. Ecology and Evolution, 2016, 6, 1128-1142.	0.8	23
90	Surviving in a Cosexual World: A Cost-Benefit Analysis of Dioecy in Tropical Trees. American Naturalist, 2017, 189, 297-314.	1.0	23

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91	A hostâ€“parasite model explains variation in liana infestation among coâ€occurring tree species. Journal of Ecology, 2018, 106, 2435-2445.	1.9	23
92	How do lianas and vines influence competitive differences and niche differences among tree species? Concepts and a case study in a tropical forest. Journal of Ecology, 2019, 107, 1469-1481.	1.9	22
93	Functional traits of tropical trees and lianas explain spatial structure across multiple scales. Journal of Ecology, 2018, 106, 795-806.	1.9	21
94	Bushmeat Hunting and Climate: An Indirect Link. Science, 2010, 327, 30-30.	6.0	20
95	Pantropical geography of lightningâ€caused disturbance and its implications for tropical forests. Global Change Biology, 2020, 26, 5017-5026.	4.2	20
96	Quantifying the role of wood density in explaining interspecific variation in growth of tropical trees. Global Ecology and Biogeography, 2017, 26, 1078-1087.	2.7	18
97	A phenology model for tropical species that flower multiple times each year. Ecological Research, 2019, 34, 20-29.	0.7	18
98	Global patterns of forest autotrophic carbon fluxes. Global Change Biology, 2021, 27, 2840-2855.	4.2	18
99	Individual tree damage dominates mortality risk factors across six tropical forests. New Phytologist, 2022, 233, 705-721.	3.5	18
100	Soils and topography control natural disturbance rates and thereby forest structure in a lowland tropical landscape. Ecology Letters, 2022, 25, 1126-1138.	3.0	18
101	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
102	Stabilization of species coexistence in spatial models through the aggregationâ€“segregation effect generated by local dispersal and nonspecific local interactions. Theoretical Population Biology, 2016, 112, 97-108.	0.5	14
103	Testing for changes in biomass dynamics in largeâ€scale forest datasets. Global Change Biology, 2020, 26, 1485-1498.	4.2	14
104	A mechanistic and empirically supported lightning risk model for forest trees. Journal of Ecology, 2020, 108, 1956-1966.	1.9	14
105	Strong temporal variation in treefall and branchfall rates in a tropical forest is related to extreme rainfall: results from 5Âyears of monthly drone data for a 50â€‰ha plot. Biogeosciences, 2021, 18, 6517-6531.	1.3	13
106	Rates of formation and dissipation of clumping reveal lagged responses in tropical tree populations. Ecology, 2016, 97, 1170-1181.	1.5	12
107	The emergence of diversity in plant communities. Comptes Rendus De L'AcadÃ©mie Des Sciences SÃ©rie 3, Sciences De La Vie, 2000, 323, 129-139.	0.8	11
108	How do size distributions relate to concurrently measured demographic rates? Evidence from over 150 tree species in Panama. Journal of Tropical Ecology, 2016, 32, 179-192.	0.5	10

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109	Liana optical traits increase tropical forest albedo and reduce ecosystem productivity. Global Change Biology, 2022, 28, 227-244.	4.2	10
110	Cascading effects of defaunation on the coexistence of two specialized insect seed predators. Journal of Animal Ecology, 2017, 86, 136-146.	1.3	8
111	Variation in trunk taper of buttressed trees within and among five lowland tropical forests. Biotropica, 2021, 53, 1442-1453.	0.8	8
112	What Determines the Abundance of Lianas and Vines?. , 2020, , 239-264.		8
113	Estimation of sticking and contact efficiencies in aggregation of phytoplankton: The 1993 SIGMA tank experiment. Deep-Sea Research Part II: Topical Studies in Oceanography, 1995, 42, 185-201.	0.6	6
114	Tree diversity in relation to maximum tree height: evidence for the harshness hypothesis of species diversity gradients. Ecology Letters, 2017, 20, 398-399.	3.0	6
115	Plant diversity rooted in pathogens. Nature, 2014, 506, 44-45.	13.7	5
116	Simulating environmentallyâ€sensitive tree recruitment in vegetation demographic models. New Phytologist, 2022, 235, 78-93.	3.5	5
117	REGIONAL AND PHYLOGENETIC VARIATION OF WOOD DENSITY ACROSS 2456 NEOTROPICAL TREE SPECIES. , 2006, 16, 2356.		2
118	Interspecific variation in tropical tree height and crown allometries in relation to life history traits. Biogeosciences, 0, , 1-25.	0.0	0