

Simon L Lewis

List of Publications by Year in descending order

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Version: 2024-02-01

148
papers

31,323
citations

16451

64
h-index

9103

144
g-index

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all docs

154
docs citations

154
times ranked

26843
citing authors

#	ARTICLE	IF	CITATIONS
1	Aboveground biomass density models for NASA's Global Ecosystem Dynamics Investigation (GEDI) lidar mission. <i>Remote Sensing of Environment</i> , 2022, 270, 112845.	11.0	108
2	The number of tree species on Earth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	86
3	Aboveground forest biomass varies across continents, ecological zones and successional stages: refined IPCC default values for tropical and subtropical forests. <i>Environmental Research Letters</i> , 2022, 17, 014047.	5.2	21
4	A comprehensive framework for assessing the accuracy and uncertainty of global above-ground biomass maps. <i>Remote Sensing of Environment</i> , 2022, 272, 112917.	11.0	48
5	MODIS Vegetation Continuous Fields tree cover needs calibrating in tropical savannas. <i>Biogeosciences</i> , 2022, 19, 1377-1394.	3.3	7
6	An Integrated Framework to Assess Greenwashing. <i>Sustainability</i> , 2022, 14, 4431.	3.2	46
7	Making forest data fair and open. <i>Nature Ecology and Evolution</i> , 2022, 6, 656-658.	7.8	18
8	Functional susceptibility of tropical forests to climate change. <i>Nature Ecology and Evolution</i> , 2022, 6, 878-889.	7.8	8
9	Water table depth modulates productivity and biomass across Amazonian forests. <i>Global Ecology and Biogeography</i> , 2022, 31, 1571-1588.	5.8	17
10	How the Glasgow Declaration on Forests can help keep alive the 1.5°C target. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	11
11	Pantropical modelling of canopy functional traits using Sentinel-2 remote sensing data. <i>Remote Sensing of Environment</i> , 2021, 252, 112122.	11.0	38
12	Pantropical variability in tree crown allometry. <i>Global Ecology and Biogeography</i> , 2021, 30, 459-475.	5.8	27
13	Effects of Earth system feedbacks on the potential mitigation of large-scale tropical forest restoration. <i>Biogeosciences</i> , 2021, 18, 2627-2647.	3.3	18
14	Resistance of African tropical forests to an extreme climate anomaly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	37
15	Earth System Models Are Not Capturing Present-Day Tropical Forest Carbon Dynamics. <i>Earth's Future</i> , 2021, 9, e2020EF001874.	6.3	22
16	High aboveground carbon stock of African tropical montane forests. <i>Nature</i> , 2021, 596, 536-542.	27.8	65
17	The NASA AfriSAR campaign: Airborne SAR and lidar measurements of tropical forest structure and biomass in support of current and future space missions. <i>Remote Sensing of Environment</i> , 2021, 264, 112533.	11.0	33
18	Congo Basin rainforest "invest US\$150 million in science. <i>Nature</i> , 2021, 598, 411-414.	27.8	9

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19	Browse from Three Tree Legumes Increases Forage Production for Cattle in a Silvopastoral System in the Southwest Amazon. <i>Animals</i> , 2021, 11, 3585.	2.3	3
20	The Role of Forest Elephants in Shaping Tropical Forest–Savanna Coexistence. <i>Ecosystems</i> , 2020, 23, 602-616.	3.4	33
21	TRY plant trait database – enhanced coverage and open access. <i>Global Change Biology</i> , 2020, 26, 119-188.	9.5	1,038
22	Old growth Afrotropical forests critical for maintaining forest carbon. <i>Global Ecology and Biogeography</i> , 2020, 29, 1785-1798.	5.8	19
23	Tree mode of death and mortality risk factors across Amazon forests. <i>Nature Communications</i> , 2020, 11, 5515.	12.8	62
24	First Evidence of Peat Domes in the Congo Basin using LiDAR from a Fixed-Wing Drone. <i>Remote Sensing</i> , 2020, 12, 2196.	4.0	18
25	Evaluating the potential of full-waveform lidar for mapping pan-tropical tree species richness. <i>Global Ecology and Biogeography</i> , 2020, 29, 1799-1816.	5.8	31
26	Long-term thermal sensitivity of Earth’s tropical forests. <i>Science</i> , 2020, 368, 869-874.	12.6	198
27	Additive influences of soil and climate gradients drive tree community composition of Central African rain forests. <i>Journal of Vegetation Science</i> , 2020, 31, 1154-1167.	2.2	3
28	Competition influences tree growth, but not mortality, across environmental gradients in Amazonia and tropical Africa. <i>Ecology</i> , 2020, 101, e03052.	3.2	57
29	Asynchronous carbon sink saturation in African and Amazonian tropical forests. <i>Nature</i> , 2020, 579, 80-87.	27.8	439
30	Long-term droughts may drive drier tropical forests towards increased functional, taxonomic and phylogenetic homogeneity. <i>Nature Communications</i> , 2020, 11, 3346.	12.8	61
31	The global abundance of tree palms. <i>Global Ecology and Biogeography</i> , 2020, 29, 1495-1514.	5.8	62
32	Assessment of Bias in Pan-Tropical Biomass Predictions. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	36
33	Estimating aboveground net biomass change for tropical and subtropical forests: Refinement of IPCC default rates using forest plot data. <i>Global Change Biology</i> , 2019, 25, 3609-3624.	9.5	78
34	Exploring the relation between remotely sensed vertical canopy structure and tree species diversity in Gabon. <i>Environmental Research Letters</i> , 2019, 14, 094013.	5.2	20
35	The Forest Observation System, building a global reference dataset for remote sensing of forest biomass. <i>Scientific Data</i> , 2019, 6, 198.	5.3	44
36	Comment on “The global tree restoration potential”. <i>Science</i> , 2019, 366, .	12.6	55

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37	Restoring natural forests is the best way to remove atmospheric carbon. <i>Nature</i> , 2019, 568, 25-28.	27.8	508
38	The persistence of carbon in the African forest understory. <i>Nature Plants</i> , 2019, 5, 133-140.	9.3	41
39	Earth system impacts of the European arrival and Great Dying in the Americas after 1492. <i>Quaternary Science Reviews</i> , 2019, 207, 13-36.	3.0	299
40	Ground Data are Essential for Biomass Remote Sensing Missions. <i>Surveys in Geophysics</i> , 2019, 40, 863-880.	4.6	91
41	Drier tropical forests are susceptible to functional changes in response to a long-term drought. <i>Ecology Letters</i> , 2019, 22, 855-865.	6.4	75
42	Compositional response of Amazon forests to climate change. <i>Global Change Biology</i> , 2019, 25, 39-56.	9.5	265
43	Congo Basin peatlands: threats and conservation priorities. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2019, 24, 669-686.	2.1	64
44	Topography shapes the structure, composition and function of tropical forest landscapes. <i>Ecology Letters</i> , 2018, 21, 989-1000.	6.4	215
45	Field methods for sampling tree height for tropical forest biomass estimation. <i>Methods in Ecology and Evolution</i> , 2018, 9, 1179-1189.	5.2	78
46	Comparison of Small- and Large-Footprint Lidar Characterization of Tropical Forest Aboveground Structure and Biomass: A Case Study From Central Gabon. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2018, 11, 3512-3526.	4.9	60
47	Pan-tropical prediction of forest structure from the largest trees. <i>Global Ecology and Biogeography</i> , 2018, 27, 1366-1383.	5.8	78
48	<i>In Situ</i> Reference Datasets From the TropiSAR and AfriSAR Campaigns in Support of Upcoming Spaceborne Biomass Missions. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2018, 11, 3617-3627.	4.9	49
49	Estimating aboveground carbon density and its uncertainty in Borneo's structurally complex tropical forests using airborne laser scanning. <i>Biogeosciences</i> , 2018, 15, 3811-3830.	3.3	47
50	Phylogenetic composition and structure of tree communities shed light on historical processes influencing tropical rainforest diversity. <i>Ecography</i> , 2017, 40, 521-530.	4.5	29
51	Seasonal drought limits tree species across the Neotropics. <i>Ecography</i> , 2017, 40, 618-629.	4.5	143
52	Diversity and carbon storage across the tropical forest biome. <i>Scientific Reports</i> , 2017, 7, 39102.	3.3	251
53	Age, extent and carbon storage of the central Congo Basin peatland complex. <i>Nature</i> , 2017, 542, 86-90.	27.8	428
54	New insights on above ground biomass and forest attributes in tropical montane forests. <i>Forest Ecology and Management</i> , 2017, 399, 235-246.	3.2	30

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55	Area-based vs tree-centric approaches to mapping forest carbon in Southeast Asian forests from airborne laser scanning data. <i>Remote Sensing of Environment</i> , 2017, 194, 77-88.	11.0	142
56	Biogeographic distributions of neotropical trees reflect their directly measured drought tolerances. <i>Scientific Reports</i> , 2017, 7, 8334.	3.3	51
57	Spatial Distribution of Carbon Stored in Forests of the Democratic Republic of Congo. <i>Scientific Reports</i> , 2017, 7, 15030.	3.3	44
58	Long-term carbon sink in Borneo's forests halted by drought and vulnerable to edge effects. <i>Nature Communications</i> , 2017, 8, 1966.	12.8	116
59	Height-diameter allometry and above ground biomass in tropical montane forests: Insights from the Albertine Rift in Africa. <i>PLoS ONE</i> , 2017, 12, e0179653.	2.5	37
60	African Savanna-Forest Boundary Dynamics: A 20-Year Study. <i>PLoS ONE</i> , 2016, 11, e0156934.	2.5	44
61	The Paris Agreement has solved a troubling problem. <i>Nature</i> , 2016, 532, 283-283.	27.8	21
62	Land cover change and carbon emissions over 100 years in an African biodiversity hotspot. <i>Global Change Biology</i> , 2016, 22, 2787-2800.	9.5	52
63	An integrated pan-tropical biomass map using multiple reference datasets. <i>Global Change Biology</i> , 2016, 22, 1406-1420.	9.5	469
64	Consistent, small effects of treefall disturbances on the composition and diversity of four Amazonian forests. <i>Journal of Ecology</i> , 2016, 104, 497-506.	4.0	15
65	Carbon sequestration and biodiversity following 18 years of active tropical forest restoration. <i>Forest Ecology and Management</i> , 2016, 373, 44-55.	3.2	88
66	Positive biodiversity-productivity relationship predominant in global forests. <i>Science</i> , 2016, 354, .	12.6	864
67	Recent Changes in Amazon Forest Biomass and Dynamics. <i>Ecological Studies</i> , 2016, , 191-224.	1.2	11
68	Aboveground biomass estimation in tropical forests at single tree level with ALS data. , 2016, , .		1
69	Ecosystem heterogeneity determines the ecological resilience of the Amazon to climate change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 793-797.	7.1	161
70	Phylogenetic diversity of Amazonian tree communities. <i>Diversity and Distributions</i> , 2015, 21, 1295-1307.	4.1	72
71	A transparent framework for defining the Anthropocene Epoch. <i>Infrastructure Asset Management</i> , 2015, 2, 128-146.	1.6	54
72	Anthropocene: Earth System, geological, philosophical and political paradigm shifts. <i>Infrastructure Asset Management</i> , 2015, 2, 108-116.	1.6	46

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73	Foliar trait contrasts between African forest and savanna trees: genetic versus environmental effects. <i>Functional Plant Biology</i> , 2015, 42, 63.	2.1	23
74	Geological evidence for the Anthropocene. <i>Science</i> , 2015, 349, 246-247.	12.6	8
75	Hyperdominance in Amazonian forest carbon cycling. <i>Nature Communications</i> , 2015, 6, 6857.	12.8	214
76	Biome-specific effects of nitrogen and phosphorus on the photosynthetic characteristics of trees at a forest-savanna boundary in Cameroon. <i>Oecologia</i> , 2015, 178, 659-672.	2.0	25
77	Defining the Anthropocene. <i>Nature</i> , 2015, 519, 171-180.	27.8	2,143
78	Increasing human dominance of tropical forests. <i>Science</i> , 2015, 349, 827-832.	12.6	551
79	Geological evidence for the Anthropocene. <i>Science</i> , 2015, 349, 246-247.	12.6	2
80	Scientist-versus-activist debates mislead the public. <i>Nature</i> , 2014, 506, 409-409.	27.8	1
81	Markedly divergent estimates of Amazon forest carbon density from ground plots and satellites. <i>Global Ecology and Biogeography</i> , 2014, 23, 935-946.	5.8	248
82	Stand structure and species co-occurrence in mixed and monodominant Central African tropical forests. <i>Journal of Tropical Ecology</i> , 2014, 30, 447-455.	1.1	10
83	Methods to estimate aboveground wood productivity from long-term forest inventory plots. <i>Forest Ecology and Management</i> , 2014, 320, 30-38.	3.2	75
84	Forests are more than sticks of carbon. <i>Nature</i> , 2014, 507, 306-306.	27.8	4
85	Fast demographic traits promote high diversification rates of Amazonian trees. <i>Ecology Letters</i> , 2014, 17, 527-536.	6.4	63
86	Tropical forest wood production: a cross-continental comparison. <i>Journal of Ecology</i> , 2014, 102, 1025-1037.	4.0	77
87	Evaluating the tropical forest carbon sink. <i>Global Change Biology</i> , 2014, 20, 2039-2041.	9.5	39
88	Shifting dynamics of climate-functional groups in old-growth Amazonian forests. <i>Plant Ecology and Diversity</i> , 2014, 7, 267-279.	2.4	18
89	Quantifying and understanding carbon storage and sequestration within the Eastern Arc Mountains of Tanzania, a tropical biodiversity hotspot. <i>Carbon Balance and Management</i> , 2014, 9, 2.	3.2	26
90	Recent changes in tropical forest biomass and dynamics. , 2014, , 77-108.		10

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91	Mixed-Forest Species Establishment in a Monodominant Forest in Central Africa: Implications for Tropical Forest Invasibility. <i>PLoS ONE</i> , 2014, 9, e97585.	2.5	23
92	Residence times of woody biomass in tropical forests. <i>Plant Ecology and Diversity</i> , 2013, 6, 139-157.	2.4	104
93	Neogene origins and implied warmth tolerance of Amazon tree species. <i>Ecology and Evolution</i> , 2013, 3, 162-169.	1.9	38
94	TESSA: A toolkit for rapid assessment of ecosystem services at sites of biodiversity conservation importance. <i>Ecosystem Services</i> , 2013, 5, 51-57.	5.4	153
95	Simulated resilience of tropical rainforests to CO ₂ -induced climate change. <i>Nature Geoscience</i> , 2013, 6, 268-273.	12.9	358
96	On the delineation of tropical vegetation types with an emphasis on forest/savanna transitions. <i>Plant Ecology and Diversity</i> , 2013, 6, 101-137.	2.4	105
97	The past, present and future of Africa's rainforests. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120293.	4.0	20
98	African rainforests: past, present and future. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120312.	4.0	131
99	Above-ground biomass and structure of 260 African tropical forests. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120295.	4.0	264
100	Predictive systems ecology. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20131452.	2.6	114
101	Changing Tropical Forest Dynamics and Their Effects on Canopy Geometry and Tropical Forest Biodiversity. , 2013, , 247-260.		1
102	We must set planetary boundaries wisely. <i>Nature</i> , 2012, 485, 417-417.	27.8	62
103	Conservation implications of recent advances in biodiversityâ€“functioning research. <i>Biological Conservation</i> , 2012, 151, 26-31.	4.1	19
104	Investigating diversity dependence of tropical forest litter decomposition: experiments and observations from Central Africa. <i>Journal of Vegetation Science</i> , 2012, 23, 223-235.	2.2	21
105	Droughtâ€“induced shifts in the floristic and functional composition of tropical forests in Ghana. <i>Ecology Letters</i> , 2012, 15, 1120-1129.	6.4	205
106	Towards Regional, Error-Bounded Landscape Carbon Storage Estimates for Data-Deficient Areas of the World. <i>PLoS ONE</i> , 2012, 7, e44795.	2.5	27
107	A Large and Persistent Carbon Sink in the Worldâ€™s Forests. <i>Science</i> , 2011, 333, 988-993.	12.6	5,393
108	Implementation and opportunity costs of reducing deforestation and forest degradation in Tanzania. <i>Nature Climate Change</i> , 2011, 1, 161-164.	18.8	117

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109	The 2010 Amazon Drought. <i>Science</i> , 2011, 331, 554-554.	12.6	912
110	Benchmark map of forest carbon stocks in tropical regions across three continents. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 9899-9904.	7.1	1,659
111	Soil Does Not Explain Monodominance in a Central African Tropical Forest. <i>PLoS ONE</i> , 2011, 6, e16996.	2.5	47
112	Predicting alpha diversity of African rain forests: models based on climate and satellite-derived data do not perform better than a purely spatial model. <i>Journal of Biogeography</i> , 2011, 38, 1164-1176.	3.0	30
113	Carbon storage, structure and composition of miombo woodlands in Tanzania's Eastern Arc Mountains. <i>African Journal of Ecology</i> , 2011, 49, 332-342.	0.9	69
114	Mechanisms of monodominance in diverse tropical tree-dominated systems. <i>Journal of Ecology</i> , 2011, 99, 891-898.	4.0	137
115	ForestPlots.net: a web application and research tool to manage and analyse tropical forest plot data. <i>Journal of Vegetation Science</i> , 2011, 22, 610-613.	2.2	157
116	Measuring, modeling and mapping ecosystem services in the Eastern Arc Mountains of Tanzania. <i>Progress in Physical Geography</i> , 2011, 35, 595-611.	3.2	84
117	The high value of logged tropical forests: lessons from northern Borneo. <i>Biodiversity and Conservation</i> , 2010, 19, 985-997.	2.6	253
118	Drought's mortality relationships for tropical forests. <i>New Phytologist</i> , 2010, 187, 631-646.	7.3	487
119	Diversity and aboveground biomass in three tropical forest types in the Dja Biosphere Reserve, Cameroon. <i>African Journal of Ecology</i> , 2010, 48, 1053-1063.	0.9	61
120	Implications of future climate and atmospheric CO ₂ content for regional biogeochemistry, biogeography and ecosystem services across East Africa. <i>Global Change Biology</i> , 2010, 16, 617-640.	9.5	71
121	Getting ready for REDD+ in Tanzania: a case study of progress and challenges. <i>Oryx</i> , 2010, 44, 339-351.	1.0	103
122	How to beat the media in the climate street fight. <i>Nature</i> , 2010, 468, 7-7.	27.8	9
123	Predictable waves of sequential forest degradation and biodiversity loss spreading from an African city. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14556-14561.	7.1	263
124	Changes in Amazonian forest biomass, dynamics, and composition, 1980-2002. <i>Geophysical Monograph Series</i> , 2009, , 373-387.	0.1	16
125	Increasing carbon storage in intact African tropical forests. <i>Nature</i> , 2009, 457, 1003-1006.	27.8	816
126	Towards a worldwide wood economics spectrum. <i>Ecology Letters</i> , 2009, 12, 351-366.	6.4	2,219

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127	Are the dynamics of tropical forests dominated by large and rare disturbance events?. Ecology Letters, 2009, 12, E19-21; discussion E22-5.	6.4	37
128	Changing Ecology of Tropical Forests: Evidence and Drivers. Annual Review of Ecology, Evolution, and Systematics, 2009, 40, 529-549.	8.3	229
129	Drought Sensitivity of the Amazon Rainforest. Science, 2009, 323, 1344-1347.	12.6	1,443
130	Carbon emissions: the poorest forest dwellers could suffer. Nature, 2009, 462, 567-567.	27.8	3
131	The production, storage, and flow of carbon in Amazonian forests. Geophysical Monograph Series, 2009, , 355-372.	0.1	19
132	The changing Amazon forest. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1819-1827.	4.0	188
133	The odd man out? Might climate explain the lower tree ÷diversity of African rain forests relative to Amazonian rain forests?. Journal of Ecology, 2007, 95, 1058-1071.	4.0	115
134	Impacts of global atmospheric change on tropical forests. Trends in Ecology and Evolution, 2006, 21, 173-174.	8.7	27
135	The regional variation of aboveground live biomass in old-growth Amazonian forests. Global Change Biology, 2006, 12, 1107-1138.	9.5	497
136	Tropical forests and the changing earth system. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 195-210.	4.0	262
137	Predicting the impacts of global environmental changes on tropical forests. , 2005, , 41-56.		1
138	Late twentieth-century patterns and trends in Amazon tree turnover. , 2005, , 107-128.		3
139	Late twentieth-century trends in the biomass of Amazonian forest plots. , 2005, , 129-142.		2
140	Late twentieth-century trends in the structure and dynamics of South American forests. , 2005, , 143-154.		0
141	Increasing biomass in Amazonian forest plots. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 353-365.	4.0	405
142	Fingerprinting the impacts of global change on tropical forests. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 437-462.	4.0	213
143	Variation in wood density determines spatial patterns in Amazonian forest biomass. Global Change Biology, 2004, 10, 545-562.	9.5	633
144	The above-ground coarse wood productivity of 104 Neotropical forest plots. Global Change Biology, 2004, 10, 563-591.	9.5	436

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145	Tropical forest tree mortality, recruitment and turnover rates: calculation, interpretation and comparison when census intervals vary. <i>Journal of Ecology</i> , 2004, 92, 929-944.	4.0	181
146	Increasing dominance of large lianas in Amazonian forests. <i>Nature</i> , 2002, 418, 770-774.	27.8	500
147	EFFECTS OF ABOVE- AND BELOWGROUND COMPETITION ON GROWTH AND SURVIVAL OF RAIN FOREST TREE SEEDLINGS. <i>Ecology</i> , 2000, 81, 2525-2538.	3.2	119
148	Effects of above- and Belowground Competition on Growth and Survival of Rain Forest Tree Seedlings. <i>Ecology</i> , 2000, 81, 2525.	3.2	3