Sean T Michaletz

List of Publications by Year
in descending order

64 papers	4,656 citations	147801 31 h-index	106344 65 g-index
76 all docs	76 docs citations	76 times ranked	8031 citing authors

#	Article	IF	Citations
1	TRY plant trait database â€" enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	9.5	1,038
2	Temperature mediates continental-scale diversity of microbes in forest soils. Nature Communications, 2016, 7, 12083.	12.8	419
3	Convergence of terrestrial plant production across global climate gradients. Nature, 2014, 512, 39-43.	27.8	274
4	The energetic and carbon economic origins of leaf thermoregulation. Nature Plants, 2016, 2, 16129.	9.3	178
5	How forest fires kill trees: A review of the fundamental biophysical processes. Scandinavian Journal of Forest Research, 2007, 22, 500-515.	1.4	169
6	Plant Thermoregulation: Energetics, Traitâ€"Environment Interactions, and Carbon Economics. Trends in Ecology and Evolution, 2015, 30, 714-724.	8.7	154
7	Open Science principles for accelerating trait-based science across the Tree of Life. Nature Ecology and Evolution, 2020, 4, 294-303.	7.8	144
8	Intraspecific Trait Variation and Phenotypic Plasticity Mediate Alpine Plant Species Response to Climate Change. Frontiers in Plant Science, 2018, 9, 1548.	3.6	131
9	Climate shapes and shifts functional biodiversity in forests worldwide. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 587-592.	7.1	131
10	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	9.5	113
11	Moving beyond the cambium necrosis hypothesis of postâ€fire tree mortality: cavitation and deformation of xylem in forest fires. New Phytologist, 2012, 194, 254-263.	7.3	111
12	Tree water dynamics in a drying and warming world. Plant, Cell and Environment, 2017, 40, 1861-1873.	5.7	96
13	Fire effects on tree physiology. New Phytologist, 2019, 223, 1728-1741.	7.3	94
14	Precipitation, not air temperature, drives functional responses of trees in semiâ€arid ecosystems. Journal of Ecology, 2017, 105, 163-175.	4.0	86
15	Predicting Chronic Climate-Driven Disturbances and Their Mitigation. Trends in Ecology and Evolution, 2018, 33, 15-27.	8.7	77
16	Biogeographic patterns of soil diazotrophic communities across six forests in the North America. Molecular Ecology, 2016, 25, 2937-2948.	3.9	76
17	The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx). Methods in Ecology and Evolution, 2020, 11, 22-37.	5.2	68
18	Biogeographic patterns of microbial co-occurrence ecological networks in six American forests. Soil Biology and Biochemistry, 2020, 148, 107897.	8.8	68

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19	A heat transfer model of crown scorch in forest fires. Canadian Journal of Forest Research, 2006, 36, 2839-2851.	1.7	67
20	Drivers of terrestrial plant production across broad geographical gradients. Global Ecology and Biogeography, 2018, 27, 166-174.	5.8	60
21	The response of stomatal conductance to seasonal drought in tropical forests. Global Change Biology, 2020, 26, 823-839.	9.5	60
22	Advances in Mechanistic Approaches to Quantifying Biophysical Fire Effects. Current Forestry Reports, 2018, 4, 161-177.	7.4	59
23	Traits drive global wood decomposition rates more than climate. Global Change Biology, 2018, 24, 5259-5269.	9.5	59
24	Predicting climate change effects on wildfires requires linking processes across scales. Wiley Interdisciplinary Reviews: Climate Change, 2011, 2, 99-112.	8.1	57
25	Assessing traitâ€based scaling theory in tropical forests spanning a broad temperature gradient. Global Ecology and Biogeography, 2017, 26, 1357-1373.	5.8	57
26	A model for leaf temperature decoupling from air temperature. Agricultural and Forest Meteorology, 2018, 262, 354-360.	4.8	55
27	Foliage influences forced convection heat transfer in conifer branches and buds. New Phytologist, 2006, 170, 87-98.	7.3	47
28	Dimensions of invasiveness: Links between local abundance, geographic range size, and habitat breadth in Europeâ€™s alien and native floras. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	47
29	Biogeochemistry drives diversity in the prokaryotes, fungi, and invertebrates of a Panama forest. Ecology, 2017, 98, 2019-2028.	3.2	46
30	A biophysical process model of tree mortality in surface fires. Canadian Journal of Forest Research, 2008, 38, 2013-2029.	1.7	44
31	Toward a theory for diversity gradients: the abundanceâ€“adaptation hypothesis. Ecography, 2018, 41, 255-264.	4.5	36
32	Continental scale structuring of forest and soil diversity via functional traits. Nature Ecology and Evolution, 2019, 3, 1298-1308.	7.8	34
33	Multiscale mapping of plant functional groups and plant traits in the High Arctic using field spectroscopy, UAV imagery and Sentinel-2A data. Environmental Research Letters, 2021, 16, 055006.	5.2	34
34	Leaf heat tolerance of 147 tropical forest species varies with elevation and leaf functional traits, but not with phylogeny. Plant, Cell and Environment, 2021, 44, 2414-2427.	5.7	33
35	Homoeostatic maintenance of nonstructural carbohydrates during the 2015â€“2016 El NiÃ±o drought across a tropical forest precipitation gradient. Plant, Cell and Environment, 2019, 42, 1705-1714.	5.7	29
36	Evaluating the kinetic basis of plant growth from organs to ecosystems. New Phytologist, 2018, 219, 37-44.	7.3	25

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37	Spatial scaling of forest soil microbial communities across a temperature gradient. Environmental Microbiology, 2018, 20, 3504-3513.	3.8	24
38	Taxonomic decomposition of the latitudinal gradient in species diversity of North American floras. Journal of Biogeography, 2018, 45, 418-428.	3.0	22
39	Low predictability of energy balance traits and leaf temperature metrics in desert, montane and alpine plant communities. Functional Ecology, 2020, 34, 1882-1897.	3.6	22
40	Xylem dysfunction in fires: towards a hydraulic theory of plant responses to multiple disturbance stressors. New Phytologist, 2018, 217, 1391-1393.	7.3	21
41	Timing of fire relative to seed development may enable non-serotinous species to recolonize from the aerial seed banks of fire-killed trees. Biogeosciences, 2013, 10, 5061-5078.	3.3	19
42	The relationship of woody plant size and leaf nutrient content to largeâ€scale productivity for forests across the Americas. Journal of Ecology, 2019, 107, 2278-2290.	4.0	18
43	The acquisitiveâ€"conservative axis of leaf trait variation emerges even in homogeneous environments. Annals of Botany, 2022, 129, 709-722.	2.9	18
44	High exposure of global tree diversity to human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	18
45	Nonâ€serotinous woody plants behave as aerial seed bank species when a lateâ€summer wildfire coincides with a mast year. Ecology and Evolution, 2014, 4, 3830-3840.	1.9	16
46	Patterns and ecological determinants of woody plant height in eastern Eurasia and its relation to primary productivity. Journal of Plant Ecology, 2019, 12, 791-803.	2.3	15
47	Traits mediate drought effects on wood carbon fluxes. Global Change Biology, 2020, 26, 3429-3442.	9.5	15
48	Position of cones within cone clusters determines seed survival in black spruce during wildfire. Canadian Journal of Forest Research, 2019, 49, 121-127.	1.7	14
49	The Leaf Economics Spectrum Constrains Phenotypic Plasticity Across a Light Gradient. Frontiers in Plant Science, 2020, 11, 735.	3.6	14
50	Extending Our Scientific Reach in Arboreal Ecosystems for Research and Management. Frontiers in Forests and Global Change, 2021, 4, .	2.3	14
51	Plant traits and vegetation data from climate warming experiments along an 1100â€‰m elevation gradient in Gongga Mountains, China. Scientific Data, 2020, 7, 189.	5.3	13
52	Nextâ€generation field courses: Integrating Open Science and online learning. Ecology and Evolution, 2021, 11, 3577-3587.	1.9	11
53	Fire and Biological Processes. Journal of Vegetation Science, 2003, 14, 622.	2.2	8
54	Toward a General Scaling Theory for Linking Traits, Stoichiometry, and Body Size to Ecosystem Function. , 2016, , 9-46.		8

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55	Drought and the interannual variability of stem growth in an aseasonal, everwet forest. Biotropica, 2019, 51, 139-154.	1.6	7
56	Dynamic biotic controls of leaf thermoregulation across the diel timescale. Agricultural and Forest Meteorology, 2022, 315, 108827.	4.8	7
57	Variations in accuracy of leaf functional trait prediction due to spectral mixing. Ecological Indicators, 2022, 136, 108687.	6.3	7
58	Gas exchange analysers exhibit large measurement error driven by internal thermal gradients. New Phytologist, 2022, 236, 369-384.	7.3	6
59	Methods matter for assessing global variation in plant thermal tolerance. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	5
60	Trait phenology and fire seasonality coâ€drive seasonal variation in fire effects on tree crowns. New Phytologist, 2022, 234, 1654-1663.	7.3	5
61	Correspondence: Reply to â€˜Analytical flaws in a continental-scale forest soil microbial diversity studyâ€™. Nature Communications, 2017, 8, 15583.	12.8	4
62	Modeling fire effects on plants: From organs to ecosystems. , 2021, , 383-421.		3
63	Thermal disruption of soil bacterial assemblages decreases diversity and assemblage similarity. Ecosphere, 2019, 10, e02598.	2.2	2
64	Summary of the Closing Plenary Lunch. Bulletin of the Ecological Society of America, 2006, 87, 394-395.	0.2	0