Xugao Wang

List of Publications by Year in descending order

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92 papers	4,731 citations	101384 36 h-index	110170 64 g-index
96 all docs	96 docs citations	96 times ranked	6028 citing authors

#	Article	IF	Citations
1	Rate of tree carbon accumulation increases continuously with tree size. Nature, 2014, 507, 90-93.	13.7	663
2	<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
3	Global importance of largeâ€diameter trees. Global Ecology and Biogeography, 2018, 27, 849-864.	2.7	330
4	Temperature sensitivity of SOM decomposition is linked with a Kâ€selected microbial community. Global Change Biology, 2021, 27, 2763-2779.	4.2	155
5	Microbial Taxa Distribution Is Associated with Ecological Trophic Cascades along an Elevation Gradient. Frontiers in Microbiology, 2017, 8, 2071.	1.5	144
6	ForestGEO: Understanding forest diversity and dynamics through a global observatory network. Biological Conservation, 2021, 253, 108907.	1.9	122
7	Integrating the underlying structure of stochasticity into community ecology. Ecology, 2020, 101, e02922.	1.5	113
8	Species associations in an oldâ€growth temperate forest in northâ€eastern China. Journal of Ecology, 2010, 98, 674-686.	1.9	108
9	An integrated UAV-borne lidar system for 3D habitat mapping in three forest ecosystems across China. International Journal of Remote Sensing, 2017, 38, 2954-2972.	1.3	106
10	Direct and indirect effects of climate on richness drive the latitudinal diversity gradient in forest trees. Ecology Letters, 2019, 22, 245-255.	3.0	92
11	Global signal of top-down control of terrestrial plant communities by herbivores. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6237-6242.	3.3	90
12	Maxent modeling for predicting the potential distribution of Sanghuang, an important group of medicinal fungi in China. Fungal Ecology, 2015, 17, 140-145.	0.7	87
13	Soil bacterial communities of different natural forest types in Northeast China. Plant and Soil, 2014, 383, 203-216.	1.8	82
14	Tree species traits affect which natural enemies drive the Janzen-Connell effect in a temperate forest. Nature Communications, 2020, 11, 286.	5.8	78
15	Effects of local biotic neighbors and habitat heterogeneity on tree and shrub seedling survival in an old-growth temperate forest. Oecologia, 2012, 170, 755-765.	0.9	75
16	Aboveâ€and belowâ€ground biodiversity jointly regulate temperate forest multifunctionality along a localâ€scale environmental gradient. Journal of Ecology, 2020, 108, 2012-2024.	1.9	74
17	Testing the independent speciesâ€™ arrangement assertion made by theories of stochastic geometry of biodiversity. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3312-3320.	1.2	72
18	Aboveground carbon storage is driven by functional trait composition and stand structural attributes rather than biodiversity in temperate mixed forests recovering from disturbances. Annals of Forest Science, 2018, 75, 1.	0.8	72

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19	Spatial patterns of tree species richness in two temperate forests. Journal of Ecology, 2011, 99, 1382-1393.	1.9	68
20	Multiple abiotic and biotic pathways shape biomass demographic processes in temperate forests. Ecology, 2019, 100, e02650.	1.5	66
21	Predicting the distributions of suitable habitat for three larch species under climate warming in Northeastern China. Forest Ecology and Management, 2008, 254, 420-428.	1.4	65
22	Spatial distributions of species in an old-growth temperate forest, northeastern China. Canadian Journal of Forest Research, 2010, 40, 1011-1019.	0.8	63
23	Phylogenetic and functional diversity area relationships in two temperate forests. Ecography, 2013, 36, 883-893.	2.1	59
24	Tree size distributions in an oldâ€growth temperate forest. Oikos, 2009, 118, 25-36.	1.2	57
25	Local-Scale Drivers of Tree Survival in a Temperate Forest. PLoS ONE, 2012, 7, e29469.	1.1	52
26	Spatially Explicit Metrics of Species Diversity, Functional Diversity, and Phylogenetic Diversity: Insights into Plant Community Assembly Processes. Annual Review of Ecology, Evolution, and Systematics, 2017, 48, 329-351.	3.8	51
27	Abiotic and biotic determinants of coarse woody productivity in temperate mixed forests. Science of the Total Environment, 2018, 630, 422-431.	3.9	49
28	Multiple metrics of diversity have different effects on temperate forest functioning over succession. Oecologia, 2016, 182, 1175-1185.	0.9	48
29	Ecological drivers of spatial community dissimilarity, species replacement and species nestedness across temperate forests. Global Ecology and Biogeography, 2018, 27, 581-592.	2.7	48
30	The contribution of understory light availability and biotic neighborhood to seedling survival in secondary versus old-growth temperate forest. Plant Ecology, 2014, 215, 795-807.	0.7	43
31	Mechanisms underlying local functional and phylogenetic beta diversity in two temperate forests. Ecology, 2015, 96, 1062-1073.	1.5	42
32	Stochastic dilution effects weaken deterministic effects of nicheâ€based processes in species rich forests. Ecology, 2016, 97, 347-360.	1.5	42
33	Soil organic carbon in an old-growth temperate forest: Spatial pattern, determinants and bias in its quantification. Geoderma, 2013, 195-196, 48-55.	2.3	40
34	Spatial patterns and associations of six congeneric species in an old-growth temperate forest. Acta Oecologica, 2010, 36, 29-38.	0.5	39
35	What happens below the canopy? Direct and indirect influences of the dominant species on forest vertical layers. Oikos, 2012, 121, 1145-1153.	1.2	39
36	Tree mycorrhizal associations mediate soil fertility effects on forest community structure in a temperate forest. New Phytologist, 2019, 223, 475-486.	3.5	39

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37	Evaluating the effectiveness of neutral landscape models to represent a real landscape. Landscape and Urban Planning, 2004, 69, 137-148.	3.4	37
38	Scale specific determinants of tree diversity in an old growth temperate forest in China. Basic and Applied Ecology, 2011, 12, 488-495.	1.2	37
39	The long-term effects of fire suppression and reforestation on a forest landscape in Northeastern China after a catastrophic wildfire. Landscape and Urban Planning, 2007, 79, 84-95.	3.4	35
40	Spatial pattern of diversity in an old-growth temperate forest in Northeastern China. Acta Oecologica, 2008, 33, 345-354.	0.5	34
41	The role of functional uniqueness and spatial aggregation in explaining rarity in trees. Global Ecology and Biogeography, 2017, 26, 777-786.	2.7	33
42	Fine-scale species co-occurrence patterns in an old-growth temperate forest. Forest Ecology and Management, 2009, 257, 2115-2120.	1.4	31
43	La survie des arbres dÃ©pend de la densitÃ© dans une ancienne forÃªt tempÃ©rÃ©e du nordest de la Chine. Annals of Forest Science, 2009, 66, 204-204.	0.8	30
44	Divergent aboveâ€•and belowâ€ground biodiversity pathways mediate disturbance impacts on temperate forest multifunctionality. Global Change Biology, 2021, 27, 2883-2894.	4.2	30
45	Linkages between the temperature sensitivity of soil respiration and microbial life strategy are dependent on sampling season. Soil Biology and Biochemistry, 2022, 172, 108758.	4.2	30
46	Simulating the effects of reforestation on a large catastrophic fire burned landscape in Northeastern China. Forest Ecology and Management, 2006, 225, 82-93.	1.4	29
47	Few large trees, rather than plant diversity and composition, drive the above-ground biomass stock and dynamics of temperate forests in northeast China. Forest Ecology and Management, 2021, 481, 118698.	1.4	28
48	Arbuscular mycorrhizal trees influence the latitudinal beta-diversity gradient of tree communities in forests worldwide. Nature Communications, 2021, 12, 3137.	5.8	28
49	Forest tree neighborhoods are structured more by negative conspecific density dependence than by interactions among closely related species. Ecography, 2018, 41, 1114-1123.	2.1	27
50	Consequences of spatial patterns for coexistence in species-rich plant communities. Nature Ecology and Evolution, 2021, 5, 965-973.	3.4	24
51	Temporal stability of aboveground biomass is governed by species asynchrony in temperate forests. Ecological Indicators, 2019, 107, 105661.	2.6	23
52	A general combined model to describe treeâ€diameter distributions within subtropical and temperate forest communities. Oikos, 2013, 122, 1636-1642.	1.2	22
53	Aboveground-belowground biodiversity linkages differ in early and late successional temperate forests. Scientific Reports, 2015, 5, 12234.	1.6	20
54	Conspecific density dependence and community structure: Insights from 11Âyears of monitoring in an oldâ€growth temperate forest in Northeast China. Ecology and Evolution, 2017, 7, 5191-5200.	0.8	20

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55	Mycorrhizal type influences plant density dependence and species richness across 15 temperate forests. Ecology, 2021, 102, e03259.	1.5	20
56	Latitudinal pattern of soil lignin/cellulose content and the activity of their degrading enzymes across a temperate forest ecosystem. Ecological Indicators, 2019, 102, 557-568.	2.6	19
57	Context-dependency of tree species diversity, trait composition and stand structural attributes regulate temperate forest multifunctionality. Science of the Total Environment, 2021, 757, 143724.	3.9	19
58	The effect of tree size, neighborhood competition and environment on tree growth in an old-growth temperate forest. Journal of Plant Ecology, 2016, , rtw126.	1.2	18
59	Drivers of bacterial beta diversity in two temperate forests. Ecological Research, 2016, 31, 57-64.	0.7	17
60	Spatial variation of species diversity across scales in an oldâ€growth temperate forest of China. Ecological Research, 2008, 23, 709-717.	0.7	16
61	Variation and synchrony of tree species mast seeding in an oldâ€growth temperate forest. Journal of Vegetation Science, 2017, 28, 413-423.	1.1	16
62	Pattern and dynamics of biomass stock in old growth forests: The role of habitat and tree size. Acta Oecologica, 2016, 75, 15-23.	0.5	15
63	Mycorrhizal associations of tree species influence soil nitrogen dynamics via effects on soil acidâ€“base chemistry. Global Ecology and Biogeography, 2022, 31, 168-182.	2.7	15
64	Assessing the cumulative effects of postfire management on forest landscape dynamics in northeastern China. Canadian Journal of Forest Research, 2006, 36, 1992-2002.	0.8	13
65	Ectomycorrhizal fungus-associated determinants jointly reflect ecological processes in a temperature broad-leaved mixed forest. Science of the Total Environment, 2020, 703, 135475.	3.9	12
66	Soil Stoichiometry Mediates Links Between Tree Functional Diversity and Soil Microbial Diversity in a Temperate Forest. Ecosystems, 2022, 25, 291-307.	1.6	12
67	Human intervened post-fire forest restoration in the Northern Great Hingâ€™an Mountains: a review. Landscape and Ecological Engineering, 2006, 2, 129-137.	0.7	11
68	Local-scale determinants of elemental stoichiometry of soil in an old-growth temperate forest. Plant and Soil, 2016, 408, 401-414.	1.8	11
69	Temporal population variability in local forest communities has mixed effects on tree species richness across a latitudinal gradient. Ecology Letters, 2020, 23, 160-171.	3.0	11
70	allodb: An R package for biomass estimation at globally distributed extratropical forest plots. Methods in Ecology and Evolution, 2022, 13, 330-338.	2.2	11
71	Dominant tree mycorrhizal associations affect soil nitrogen transformation rates by mediating microbial abundances in a temperate forest. Biogeochemistry, 2022, 158, 405-421.	1.7	11
72	Intra-annual variations in abundance and species composition of carabid beetles in a temperate forest in Northeast China. Journal of Insect Conservation, 2014, 18, 85-98.	0.8	10

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73	Deterministic processes drive functional and phylogenetic temporal changes of woody species in temperate forests in Northeast China. Annals of Forest Science, 2019, 76, 1.	0.8	10
74	Foundation species across a latitudinal gradient in China. Ecology, 2021, 102, e03234.	1.5	10
75	Tree species diversity enhances plant-soil interactions in a temperate forest in northeast China. Forest Ecology and Management, 2021, 491, 119160.	1.4	10
76	Local-scale drivers of multi-stemmed tree formation in Acer, in a temperate forest of Northeast China. Science Bulletin, 2014, 59, 320-325.	1.7	9
77	Spatial patterns and ecological drivers of soil nematode Î²â€diversity in natural grasslands vary among vegetation types and trophic position. Journal of Animal Ecology, 2021, 90, 1367-1378.	1.3	9
78	Intraspecific trait variation improves the detection of deterministic community assembly processes in early successional forests, but not in late successional forests. Journal of Plant Ecology, 2019, 12, 593-602.	1.2	8
79	Interannual climate variability has predominant effects on seedling survival in a temperate forest. Ecology, 2022, 103, e3643.	1.5	7
80	Scale-dependent effect of biotic interactions and environmental conditions in community assembly: insight from a large temperate forest plot. Plant Ecology, 2016, 217, 1003-1014.	0.7	5
81	The role of breeding system in community dynamics: Growth and mortality in forests of different successional stages. Ecology and Evolution, 2018, 8, 7285-7296.	0.8	5
82	Similarity between seed rain and neighbouring mature tree communities in an old-growth temperate forest. Journal of Forestry Research, 2020, 31, 2435-2444.	1.7	5
83	Tree growth response to soil nutrients and neighborhood crowding varies between mycorrhizal types in an old-growth temperate forest. Oecologia, 2021, 197, 523-535.	0.9	5
84	Reproductive traits and their correlation among woody plants in a broadleaf-Korean pine (<italic>Pinus koraiensis</italic>) mixed forest in Northeast China. Chinese Science Bulletin, 2014, 59, 2407-2415.	0.4	5
85	Ecological restoration:Our hope for the future?. Chinese Geographical Science, 2004, 14, 361-367.	1.2	4
86	Dynamics of Two Multi-Stemmed Understory Shrubs in Two Temperate Forests. PLoS ONE, 2014, 9, e98200.	1.1	4
87	Tree planting: How fast can it accelerate post-fire forest restoration? â€" A case study in Northern Da Hinggan Mountains, China. Chinese Geographical Science, 2010, 20, 481-490.	1.2	3
88	Long-term effect of different planting proportions on forest landscape in Great Xingâ€™an Mountains, Northeast China after the catastrophic fire in 1987. Frontiers of Forestry in China: Selected Publications From Chinese Universities, 2007, 2, 382-389.	0.2	2
89	Testing mechanisms of compensatory fitness of dioecy in a cosexual world. Journal of Vegetation Science, 2019, 30, 413-426.	1.1	2
90	Interactions between all pairs of neighboring trees in 16 forests worldwide reveal details of unique ecological processes in each forest, and provide windows into their evolutionary histories. PLoS Computational Biology, 2021, 17, e1008853.	1.5	1

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91	Anthropogenic Disturbances Shape Soil Capillary and Saturated Water Retention Indirectly via Plant Functional Traits and Soil Organic Carbon in Temperate Forests. Forests, 2021, 12, 1588.	0.9	1
92	The Shift from Energy to Water Limitation in Local Canopy Height from Temperate to Tropical Forests in China. Forests, 2022, 13, 639.	0.9	1