

# Jiangyang Xia

## List of Publications by Year in descending order

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Version: 2024-02-01

124  
papers

8,410  
citations

57681

46  
h-index

56606

87  
g-index

132  
all docs

132  
docs citations

132  
times ranked

9454  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitrogen addition promotes soil microbial beta diversity and the stochastic assembly. <i>Science of the Total Environment</i> , 2022, 806, 150569.	3.9	26
2	Nocturnal warming accelerates drought-induced seedling mortality of two evergreen tree species. <i>Tree Physiology</i> , 2022, 42, 1164-1176.	1.4	4
3	Are regional precipitation-productivity relationships robust to decadal-scale dry period?. <i>Journal of Plant Ecology</i> , 2022, 15, 711-720.	1.2	5
4	Experimental warming reduces ecosystem resistance and resilience to severe flooding in a wetland. <i>Science Advances</i> , 2022, 8, eabl9526.	4.7	22
5	Consistent temperature-dependent patterns of leaf lifespan across spatial and temporal gradients for deciduous trees in Europe. <i>Science of the Total Environment</i> , 2022, 820, 153175.	3.9	1
6	Soil phosphorus drives plant trait variations in a mature subtropical forest. <i>Global Change Biology</i> , 2022, 28, 3310-3320.	4.2	14
7	Warming effects on grassland productivity depend on plant diversity. <i>Global Ecology and Biogeography</i> , 2022, 31, 588-598.	2.7	13
8	Can evolutionary history predict plant plastic responses to climate change?. <i>New Phytologist</i> , 2022, 235, 1260-1271.	3.5	14
9	Nutrient Limitations Lead to a Reduced Magnitude of Disequilibrium in the Global Terrestrial Carbon Cycle. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2022, 127, .	1.3	4
10	Matrix Approach to Land Carbon Cycle Modeling. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	7
11	Reduced magnitude and shifted seasonality of CO <sub>2</sub> sink by experimental warming in a coastal wetland. <i>Ecology</i> , 2021, 102, e03236.	1.5	9
12	The U-shaped pattern of size-dependent mortality and its correlated factors in a subtropical monsoon evergreen forest. <i>Journal of Ecology</i> , 2021, 109, 2421-2433.	1.9	7
13	A Comparison of Linear Conventional and Nonlinear Microbial Models for Simulating Pulse Dynamics of Soil Heterotrophic Respiration in a Semi-Arid Grassland. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006120.	1.3	5
14	A small climate-amplifying effect of climate-carbon cycle feedback. <i>Nature Communications</i> , 2021, 12, 2952.	5.8	5
15	Plant functional types regulate non-additive responses of soil respiration to 5-year warming and nitrogen addition in a semi-arid grassland. <i>Functional Ecology</i> , 2021, 35, 2593-2603.	1.7	13
16	Warming reshaped the microbial hierarchical interactions. <i>Global Change Biology</i> , 2021, 27, 6331-6347.	4.2	81
17	Modeling the typhoon disturbance effect on ecosystem carbon storage dynamics in a subtropical forest of China's coastal region. <i>Ecological Modelling</i> , 2021, 455, 109636.	1.2	0
18	A traceability analysis system for model evaluation on land carbon dynamics: design and applications. <i>Ecological Processes</i> , 2021, 10, .	1.6	7

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19	Effect of tidal flooding on ecosystem CO <sub>2</sub> and CH <sub>4</sub> fluxes in a salt marsh in the Yellow River Delta. <i>Estuarine, Coastal and Shelf Science</i> , 2020, 232, 106512.	0.9	14
20	Warming-induced global soil carbon loss attenuated by downward carbon movement. <i>Global Change Biology</i> , 2020, 26, 7242-7254.	4.2	28
21	Minimum carbon uptake controls the interannual variability of ecosystem productivity in tropical evergreen forests. <i>Global and Planetary Change</i> , 2020, 195, 103343.	1.6	2
22	Tidal effects on ecosystem CO <sub>2</sub> exchange at multiple timescales in a salt marsh in the Yellow River Delta. <i>Estuarine, Coastal and Shelf Science</i> , 2020, 238, 106727.	0.9	13
23	Integrative ecology in the era of big data—From observation to prediction. <i>Science China Earth Sciences</i> , 2020, 63, 1429-1442.	2.3	14
24	Research challenges and opportunities for using big data in global change biology. <i>Global Change Biology</i> , 2020, 26, 6040-6061.	4.2	33
25	Nonlinear Increase of Vegetation Carbon Storage in Aging Forests and Its Implications for Earth System Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002304.	1.3	7
26	Robust leaf trait relationships across species under global environmental changes. <i>Nature Communications</i> , 2020, 11, 2999.	5.8	63
27	Warming-induced unprecedented high-elevation forest growth over the monsoonal Tibetan Plateau. <i>Environmental Research Letters</i> , 2020, 15, 054011.	2.2	23
28	Traits mediate drought effects on wood carbon fluxes. <i>Global Change Biology</i> , 2020, 26, 3429-3442.	4.2	15
29	Nighttime warming enhances ecosystem carbon-use efficiency in a temperate steppe. <i>Functional Ecology</i> , 2020, 34, 1721-1730.	1.7	16
30	Depth-dependent soil C-N-P stoichiometry in a mature subtropical broadleaf forest. <i>Geoderma</i> , 2020, 370, 114357.	2.3	42
31	Impacts of global environmental change drivers on non-structural carbohydrates in terrestrial plants. <i>Functional Ecology</i> , 2020, 34, 1525-1536.	1.7	44
32	Both day and night warming reduce tree growth in extremely dry soils. <i>Environmental Research Letters</i> , 2020, 15, 094074.	2.2	9
33	Spatial variations in terrestrial net ecosystem productivity and its local indicators. <i>Biogeosciences</i> , 2020, 17, 6237-6246.	1.3	3
34	A meta-analysis of 1,119 manipulative experiments on terrestrial carbon-cycling responses to global change. <i>Nature Ecology and Evolution</i> , 2019, 3, 1309-1320.	3.4	304
35	Plant NE : a global database of plant biomass from nitrogen-addition experiments. <i>Ecology</i> , 2019, 100, e02840.	1.5	5
36	High ecosystem stability of evergreen broadleaf forests under severe droughts. <i>Global Change Biology</i> , 2019, 25, 3494-3503.	4.2	89

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37	Divergent shifts in peak photosynthesis timing of temperate and alpine grasslands in China. <i>Remote Sensing of Environment</i> , 2019, 233, 111395.	4.6	85
38	Plant evolutionary history mainly explains the variance in biomass responses to climate warming at a global scale. <i>New Phytologist</i> , 2019, 222, 1338-1351.	3.5	20
39	A threefold difference in plant growth response to nitrogen addition between the laboratory and field experiments. <i>Ecosphere</i> , 2019, 10, e02572.	1.0	15
40	Different impacts of external ammonium and nitrate addition on plant growth in terrestrial ecosystems: A meta-analysis. <i>Science of the Total Environment</i> , 2019, 686, 1010-1018.	3.9	36
41	Vegetation Functional Properties Determine Uncertainty of Simulated Ecosystem Productivity: A Traceability Analysis in the East Asian Monsoon Region. <i>Global Biogeochemical Cycles</i> , 2019, 33, 668-689.	1.9	38
42	Decadal Stabilization of Soil Inorganic Nitrogen as a Benchmark for Global Land Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 1088-1099.	1.3	8
43	Plant Feedback Aggravates Soil Organic Carbon Loss Associated With Wind Erosion in Northwest China. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 825-839.	1.3	17
44	Evaluating the simulated mean soil carbon transit times by Earth system models using observations. <i>Biogeosciences</i> , 2019, 16, 917-926.	1.3	10
45	Approaching the potential of model-data comparisons of global land carbon storage. <i>Scientific Reports</i> , 2019, 9, 3367.	1.6	15
46	Global variation of soil microbial carbon-use efficiency in relation to growth temperature and substrate supply. <i>Scientific Reports</i> , 2019, 9, 5621.	1.6	49
47	Relative contributions of biotic and abiotic factors to the spatial variation of litter stock in a mature subtropical forest. <i>Journal of Plant Ecology</i> , 2019, 12, 769-780.	1.2	10
48	Realized ecological forecast through an interactive Ecological Platform for Assimilating Data (EcoPAD, v1.0) into models. <i>Geoscientific Model Development</i> , 2019, 12, 1119-1137.	1.3	17
49	Changing precipitation exerts greater influence on soil heterotrophic than autotrophic respiration in a semiarid steppe. <i>Agricultural and Forest Meteorology</i> , 2019, 271, 413-421.	1.9	56
50	Decadal biomass increment in early secondary succession woody ecosystems is increased by CO2 enrichment. <i>Nature Communications</i> , 2019, 10, 454.	5.8	68
51	Changes in plant biomass induced by soil moisture variability drive interannual variation in the net ecosystem CO2 exchange over a reclaimed coastal wetland. <i>Agricultural and Forest Meteorology</i> , 2019, 264, 138-148.	1.9	36
52	Spatially-explicit estimate of soil nitrogen stock and its implication for land model across Tibetan alpine permafrost region. <i>Science of the Total Environment</i> , 2019, 650, 1795-1804.	3.9	19
53	A methodological review on identification of tree mortality and their applications. <i>Chinese Science Bulletin</i> , 2019, 64, 2395-2409.	0.4	3
54	Water response of ecosystem respiration regulates future projection of net ecosystem productivity in a semiarid grassland. <i>Agricultural and Forest Meteorology</i> , 2018, 252, 175-191.	1.9	9

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55	Joint structural and physiological control on the interannual variation in productivity in a temperate grassland: A data-model comparison. <i>Global Change Biology</i> , 2018, 24, 2965-2979.	4.2	53
56	Precipitation events reduce soil respiration in a coastal wetland based on four-year continuous field measurements. <i>Agricultural and Forest Meteorology</i> , 2018, 256-257, 292-303.	1.9	79
57	Divergent responses of ecosystem respiration components to livestock exclusion on the Qinghai Tibetan Plateau. <i>Land Degradation and Development</i> , 2018, 29, 1726-1737.	1.8	19
58	Matrix approach to land carbon cycle modeling: A case study with the Community Land Model. <i>Global Change Biology</i> , 2018, 24, 1394-1404.	4.2	64
59	Dual effect of precipitation redistribution on net ecosystem CO <sub>2</sub> exchange of a coastal wetland in the Yellow River Delta. <i>Agricultural and Forest Meteorology</i> , 2018, 249, 286-296.	1.9	37
60	Enhanced peak growth of global vegetation and its key mechanisms. <i>Nature Ecology and Evolution</i> , 2018, 2, 1897-1905.	3.4	169
61	Carbon-nitrogen coupling under three schemes of model representation: a traceability analysis. <i>Geoscientific Model Development</i> , 2018, 11, 4399-4416.	1.3	22
62	Non-uniform seasonal warming regulates vegetation greening and atmospheric CO <sub>2</sub> amplification over northern lands. <i>Environmental Research Letters</i> , 2018, 13, 124008.	2.2	11
63	Biotic responses buffer warming-induced soil organic carbon loss in Arctic tundra. <i>Global Change Biology</i> , 2018, 24, 4946-4959.	4.2	21
64	Differential responses of carbon-degrading enzyme activities to warming: Implications for soil respiration. <i>Global Change Biology</i> , 2018, 24, 4816-4826.	4.2	131
65	Effects of litter manipulation on soil respiration under short-term nitrogen addition in a subtropical evergreen forest. <i>Forest Ecology and Management</i> , 2018, 429, 77-83.	1.4	16
66	More replenishment than priming loss of soil organic carbon with additional carbon input. <i>Nature Communications</i> , 2018, 9, 3175.	5.8	69
67	Soil and vegetation carbon turnover times from tropical to boreal forests. <i>Functional Ecology</i> , 2018, 32, 71-82.	1.7	68
68	Daytime warming lowers community temporal stability by reducing the abundance of dominant, stable species. <i>Global Change Biology</i> , 2017, 23, 154-163.	4.2	95
69	Comparing the Performance of Three Land Models in Global C Cycle Simulations: A Detailed Structural Analysis. <i>Land Degradation and Development</i> , 2017, 28, 524-533.	1.8	32
70	Challenging terrestrial biosphere models with data from the long-term multifactor Prairie Heating and CO <sub>2</sub> Enrichment experiment. <i>Global Change Biology</i> , 2017, 23, 3623-3645.	4.2	42
71	Asymmetric sensitivity of ecosystem carbon and water processes in response to precipitation change in a semi-arid steppe. <i>Functional Ecology</i> , 2017, 31, 1301-1311.	1.7	84
72	Terrestrial ecosystem model performance in simulating productivity and its vulnerability to climate change in the northern permafrost region. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 430-446.	1.3	47

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73	Quantifying uncertainties from additional nitrogen data and processes in a terrestrial ecosystem model with Bayesian probabilistic inversion. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 548-565.	1.3	9
74	Gross primary production responses to warming, elevated CO <sub>2</sub> , and irrigation: quantifying the drivers of ecosystem physiology in a semiarid grassland. <i>Global Change Biology</i> , 2017, 23, 3092-3106.	4.2	43
75	Transient Traceability Analysis of Land Carbon Storage Dynamics: Procedures and Its Application to Two Forest Ecosystems. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 2822-2835.	1.3	13
76	Warming Effects on Ecosystem Carbon Fluxes Are Modulated by Plant Functional Types. <i>Ecosystems</i> , 2017, 20, 515-526.	1.6	54
77	Effects of warming and increased precipitation on net ecosystem productivity: A long-term manipulative experiment in a semiarid grassland. <i>Agricultural and Forest Meteorology</i> , 2017, 232, 359-366.	1.9	65
78	Transient dynamics of terrestrial carbon storage: mathematical foundation and its applications. <i>Biogeosciences</i> , 2017, 14, 145-161.	1.3	91
79	Divergent predictions of carbon storage between two global land models: attribution of the causes through traceability analysis. <i>Earth System Dynamics</i> , 2016, 7, 649-658.	2.7	36
80	Stronger warming effects on microbial abundances in colder regions. <i>Scientific Reports</i> , 2016, 5, 18032.	1.6	88
81	Nighttime warming enhances drought resistance of plant communities in a temperate steppe. <i>Scientific Reports</i> , 2016, 6, 23267.	1.6	47
82	Global patterns and substrate-based mechanisms of the terrestrial nitrogen cycle. <i>Ecology Letters</i> , 2016, 19, 697-709.	3.0	192
83	Variation of parameters in a Flux-Based Ecosystem Model across 12 sites of terrestrial ecosystems in the conterminous USA. <i>Ecological Modelling</i> , 2016, 336, 57-69.	1.2	24
84	Dual mechanisms regulate ecosystem stability under decade-long warming and hay harvest. <i>Nature Communications</i> , 2016, 7, 11973.	5.8	66
85	Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. <i>Global Biogeochemical Cycles</i> , 2016, 30, 1015-1037.	1.9	116
86	Conspecific Leaf Litter-Mediated Effect of Conspecific Adult Neighborhood on Early-Stage Seedling Survival in A Subtropical Forest. <i>Scientific Reports</i> , 2016, 6, 37830.	1.6	6
87	Methodological uncertainty in estimating carbon turnover times of soil fractions. <i>Soil Biology and Biochemistry</i> , 2016, 100, 118-124.	4.2	42
88	Precipitation regime drives warming responses of microbial biomass and activity in temperate steppe soils. <i>Biology and Fertility of Soils</i> , 2016, 52, 469-477.	2.3	28
89	Toward more realistic projections of soil carbon dynamics by Earth system models. <i>Global Biogeochemical Cycles</i> , 2016, 30, 40-56.	1.9	343
90	Differential responses of ecosystem respiration components to experimental warming in a meadow grassland on the Tibetan Plateau. <i>Agricultural and Forest Meteorology</i> , 2016, 220, 21-29.	1.9	117

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91	Experimental warming altered rates of carbon processes, allocation, and carbon storage in a tallgrass prairie. <i>Ecosphere</i> , 2015, 6, 1-16.	1.0	20
92	Explicitly representing soil microbial processes in Earth system models. <i>Global Biogeochemical Cycles</i> , 2015, 29, 1782-1800.	1.9	286
93	Evidence for long-term shift in plant community composition under decadal experimental warming. <i>Journal of Ecology</i> , 2015, 103, 1131-1140.	1.9	78
94	Application of a two-pool model to soil carbon dynamics under elevated $\text{CO}_2$ . <i>Global Change Biology</i> , 2015, 21, 4293-4297.	4.2	18
95	Importance of vegetation dynamics for future terrestrial carbon cycling. <i>Environmental Research Letters</i> , 2015, 10, 054019.	2.2	60
96	Joint control of terrestrial gross primary productivity by plant phenology and physiology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 2788-2793.	3.3	265
97	Scale-Dependent Performance of CMIP5 Earth System Models in Simulating Terrestrial Vegetation Carbon*. <i>Journal of Climate</i> , 2015, 28, 5217-5232.	1.2	24
98	Grazing and watering alter plant phenological processes in a desert steppe community. <i>Plant Ecology</i> , 2015, 216, 599-613.	0.7	27
99	Precipitation Regime Shift Enhanced the Rain Pulse Effect on Soil Respiration in a Semi-Arid Steppe. <i>PLoS ONE</i> , 2014, 9, e104217.	1.1	41
100	Rain use efficiency as affected by climate warming and biofuel harvest: results from a 12-year field experiment. <i>GCB Bioenergy</i> , 2014, 6, 556-565.	2.5	9
101	Modeling permafrost thaw and ecosystem carbon cycle under annual and seasonal warming at an Arctic tundra site in Alaska. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1129-1146.	1.3	19
102	Terrestrial carbon cycle affected by non-uniform climate warming. <i>Nature Geoscience</i> , 2014, 7, 173-180.	5.4	226
103	Plant growth and mortality under climatic extremes: An overview. <i>Environmental and Experimental Botany</i> , 2014, 98, 13-19.	2.0	157
104	Ecosystem photosynthesis regulates soil respiration on a diurnal scale with a short-term time lag in a coastal wetland. <i>Soil Biology and Biochemistry</i> , 2014, 68, 85-94.	4.2	76
105	Evaluation and improvement of a global land model against soil carbon data using a Bayesian Markov chain Monte Carlo method. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 403-417.	1.3	82
106	The effect of warming on grassland evapotranspiration partitioning using laser-based isotope monitoring techniques. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 111, 28-38.	1.6	67
107	Global patterns of the responses of leaf-level photosynthesis and respiration in terrestrial plants to experimental warming. <i>Journal of Plant Ecology</i> , 2013, 6, 437-447.	1.2	116
108	Traceable components of terrestrial carbon storage capacity in biogeochemical models. <i>Global Change Biology</i> , 2013, 19, 2104-2116.	4.2	141

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109	Nitrogen deposition weakens plant-microbe interactions in grassland ecosystems. <i>Global Change Biology</i> , 2013, 19, 3688-3697.	4.2	221
110	Independent effects of warming and nitrogen addition on plant phenology in the Inner Mongolian steppe. <i>Annals of Botany</i> , 2013, 111, 1207-1217.	1.4	96
111	Nitrogen Addition and Warming Independently Influence the Belowground Micro-Food Web in a Temperate Steppe. <i>PLoS ONE</i> , 2013, 8, e60441.	1.1	53
112	Effects of mowing and nitrogen addition on soil respiration in three patches in an oldfield grassland in Inner Mongolia. <i>Journal of Plant Ecology</i> , 2012, 5, 219-228.	1.2	46
113	The Effects of Warming-Shifted Plant Phenology on Ecosystem Carbon Exchange Are Regulated by Precipitation in a Semi-Arid Grassland. <i>PLoS ONE</i> , 2012, 7, e32088.	1.1	42
114	Water-use efficiency in response to climate change: from leaf to ecosystem in a temperate steppe. <i>Global Change Biology</i> , 2011, 17, 1073-1082.	4.2	271
115	Effects of Increased Nitrogen Deposition and Precipitation on Seed and Seedling Production of <i>Potentilla tanacetifolia</i> in a Temperate Steppe Ecosystem. <i>PLoS ONE</i> , 2011, 6, e28601.	1.1	28
116	Impacts of day versus night warming on soil microclimate: Results from a semiarid temperate steppe. <i>Science of the Total Environment</i> , 2010, 408, 2807-2816.	3.9	31
117	Climate warming and biomass accumulation of terrestrial plants: a meta-analysis. <i>New Phytologist</i> , 2010, 188, 187-198.	3.5	298
118	Nitrogen effects on net ecosystem carbon exchange in a temperate steppe. <i>Global Change Biology</i> , 2010, 16, 144-155.	4.2	183
119	Response of ecosystem carbon exchange to warming and nitrogen addition during two hydrologically contrasting growing seasons in a temperate steppe. <i>Global Change Biology</i> , 2009, 15, 1544-1556.	4.2	228
120	Photosynthetic overcompensation under nocturnal warming enhances grassland carbon sequestration. <i>Ecology</i> , 2009, 90, 2700-2710.	1.5	213
121	Water-mediated responses of ecosystem carbon fluxes to climatic change in a temperate steppe. <i>New Phytologist</i> , 2008, 177, 209-219.	3.5	392
122	Global response patterns of terrestrial plant species to nitrogen addition. <i>New Phytologist</i> , 2008, 179, 428-439.	3.5	579
123	Climatic warming changes plant photosynthesis and its temperature dependence in a temperate steppe of northern China. <i>Environmental and Experimental Botany</i> , 2008, 63, 91-101.	2.0	105
124	Plant photosynthetic overcompensation under nocturnal warming: lack of evidence in subtropical evergreen trees. <i>Annals of Botany</i> , 0, , .	1.4	1