Juergen Kreyling

List of Publications by Year
in descending order

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Version: 2024-02-01

141	9,791	28274	40979
papers	citations	55 h-index	93 g-index

152	152	152	12682
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biodiversity increases the resistance of ecosystem productivity to climate extremes. Nature, 2015, 526, 574-577.	27.8	1,032
2	A new generation of climate-change experiments: events, not trends. Frontiers in Ecology and the Environment, 2007, 5, 365-374.	4.0	931
3	Multiple facets of biodiversity drive the diversityâ€“stability relationship. Nature Ecology and Evolution, 2018, 2, 1579-1587.	7.8	296
4	Winter climate change: a critical factor for temperate vegetation performance. Ecology, 2010, 91, 1939-1948.	3.2	283
5	Ecological stress memory and cross stress tolerance in plants in the face of climate extremes. Environmental and Experimental Botany, 2013, 94, 3-8.	4.2	283
6	Climate extremes initiate ecosystemâ€regulating functions while maintaining productivity. Journal of Ecology, 2011, 99, 689-702.	4.0	243
7	Beyond gradual warming: extreme weather events alter flower phenology of European grassland and heath species. Global Change Biology, 2009, 15, 837-849.	9.5	190
8	Opposite metabolic responses of shoots and roots to drought. Scientific Reports, 2014, 4, 6829.	3.3	170
9	Plant diversity effects on grassland productivity are robust to both nutrient enrichment and drought. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150277.	4.0	169
10	Effects of extreme drought on specific leaf area of grassland species: A metaâ€analysis of experimental studies in temperate and subâ€Mediterranean systems. Global Change Biology, 2017, 23, 2473-2481.	9.5	165
11	To replicate, or not to replicate â€“ that is the question: how to tackle nonlinear responses in ecological experiments. Ecology Letters, 2018, 21, 1629-1638.	6.4	146
12	Global change effects on plant communities are magnified by time and the number of global change factors imposed. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17867-17873.	7.1	141
13	Asynchrony among local communities stabilises ecosystem function of metacommunities. Ecology Letters, 2017, 20, 1534-1545.	6.4	136
14	Low-temperature threshold for egg survival of a post-diapause and non-diapause European aedine strain, Aedes albopictus (Diptera: Culicidae). Parasites and Vectors, 2012, 5, 100.	2.5	133
15	Effects of Extreme Weather Events on Plant Productivity and Tissue Die-Back are Modified by Community Composition. Ecosystems, 2008, 11, 752-763.	3.4	132
16	Interactions among ecosystem services across Europe: Bagplots and cumulative correlation coefficients reveal synergies, trade-offs, and regional patterns. Ecological Indicators, 2015, 49, 46-52.	6.3	132
17	SoilTemp: A global database of nearâ€surface temperature. Global Change Biology, 2020, 26, 6616-6629.	9.5	122
18	Stochastic trajectories of succession initiated by extreme climatic events. Ecology Letters, 2011, 14, 758-764.	6.4	114

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19	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	9.5	113
20	Ecotypes of European grass species respond differently to warming and extreme drought. Journal of Ecology, 2011, 99, 703-713.	4.0	110
21	Warming differentially influences the effects of drought on stoichiometry and metabolomics in shoots and roots. New Phytologist, 2015, 207, 591-603.	7.3	109
22	Mean annual precipitation predicts primary production resistance and resilience to extreme drought. Science of the Total Environment, 2018, 636, 360-366.	8.0	109
23	Vanishing winters in Germany: soil frost dynamics and snow cover trends, and ecological implications. Climate Research, 2011, 46, 269-276.	1.1	101
24	Tree growth influenced by warming winter climate and summer moisture availability in northern temperate forests. Global Change Biology, 2020, 26, 2505-2518.	9.5	101
25	Recurrent soil freezeâ€“thaw cycles enhance grassland productivity. New Phytologist, 2008, 177, 938-945.	7.3	100
26	The hidden season: growing season is 50% longer below than above ground along an arctic elevation gradient. New Phytologist, 2016, 209, 978-986.	7.3	100
27	Intraspecific variation buffers projected climate change impacts on Pinus contorta. Ecology and Evolution, 2013, 3, 437-449.	1.9	97
28	Local adaptations to frost in marginal and central populations of the dominant forest tree <scp>F</scp>agus sylvatica <scp>L</scp>. as affected by temperature and extreme drought in common garden experiments. Ecology and Evolution, 2014, 4, 594-605.	1.9	97
29	Water stress due to increased intra-annual precipitation variability reduced forage yield but raised forage quality of a temperate grassland. Agriculture, Ecosystems and Environment, 2014, 186, 11-22.	5.3	93
30	Global Change Experiments: Challenges and Opportunities. BioScience, 2015, 65, 922-931.	4.9	93
31	Climatically controlled reproduction drives interannual growth variability in a temperate tree species. Ecology Letters, 2018, 21, 1833-1844.	6.4	92
32	Absence of snow cover reduces understory plant cover and alters plant community composition in boreal forests. Oecologia, 2012, 168, 577-587.	2.0	91
33	Extreme weather events and plantâ€“plant interactions: shifts between competition and facilitation among grassland species in the face of drought and heavy rainfall. Ecological Research, 2014, 29, 991-1001.	1.5	90
34	Upward shift of alpine plants increases floristic similarity of mountain summits. Journal of Vegetation Science, 2007, 18, 711-718.	2.2	89
35	Recurrent Mild Drought Events Increase Resistance Toward Extreme Drought Stress. Ecosystems, 2014, 17, 1068-1081.	3.4	89
36	Wetland buffer zones for nitrogen and phosphorus retention: Impacts of soil type, hydrology and vegetation. Science of the Total Environment, 2020, 727, 138709.	8.0	89

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37	Climate-change-driven growth decline of European beech forests. Communications Biology, 2022, 5, 163.	4.4	89
38	Assisted Colonization: A Question of Focal Units and Recipient Localities. Restoration Ecology, 2011, 19, 433-440.	2.9	84
39	Patterns and drivers of biodiversityâ€“stability relationships under climate extremes. Journal of Ecology, 2018, 106, 890-902.	4.0	83
40	Species richness effects on grassland recovery from drought depend on community productivity in a multisite experiment. Ecology Letters, 2017, 20, 1405-1413.	6.4	82
41	Cold hardiness of Pinus nigra Arnold as influenced by geographic origin, warming, and extreme summer drought. Environmental and Experimental Botany, 2012, 78, 99-108.	4.2	79
42	Soil biotic processes remain remarkably stable after 100-year extreme weather events in experimental grassland and heath. Plant and Soil, 2008, 308, 175-188.	3.7	77
43	Late frost sensitivity of juvenile Fagus sylvatica L. differs between southern Germany and Bulgaria and depends on preceding air temperature. European Journal of Forest Research, 2012, 131, 717-725.	2.5	76
44	Rewetting does not return drained fen peatlands to their old selves. Nature Communications, 2021, 12, 5693.	12.8	75
45	Different reactions of central and marginal provenances of Fagus sylvatica to experimental drought. European Journal of Forest Research, 2014, 133, 247-260.	2.5	74
46	Biotic homogenization destabilizes ecosystem functioning by decreasing spatial asynchrony. Ecology, 2021, 102, e03332.	3.2	74
47	Beyond realism in climate change experiments: gradient approaches identify thresholds and tipping points. Ecology Letters, 2014, 17, 125.	6.4	71
48	Key ecological research questions for Central European forests. Basic and Applied Ecology, 2018, 32, 3-25.	2.7	71
49	Effects of soil freezeâ€“thaw cycles differ between experimental plant communities. Basic and Applied Ecology, 2010, 11, 65-75.	2.7	69
50	Increased rainfall variability reduces biomass and forage quality of temperate grassland largely independent of mowing frequency. Agriculture, Ecosystems and Environment, 2012, 148, 1-10.	5.3	69
51	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
52	Short-term impacts of soil freeze-thaw cycles on roots and root-associated fungi of Holcus lanatus and Calluna vulgaris. Plant and Soil, 2012, 353, 19-31.	3.7	64
53	Combined effects of multifactor climate change and land-use on decomposition in temperate grassland. Soil Biology and Biochemistry, 2013, 60, 10-18.	8.8	63
54	Cold tolerance of tree species is related to the climate of their native ranges. Journal of Biogeography, 2015, 42, 156-166.	3.0	62

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55	Shortâ€term climate change manipulation effects do not scale up to longâ€term legacies: effects of an absent snow cover on boreal forest plants. Journal of Ecology, 2016, 104, 1638-1648.	4.0	57
56	ForestTemp â€“ Subâ€canopy microclimate temperatures of European forests. Global Change Biology, 2021, 27, 6307-6319.	9.5	57
57	Complexity in Climate Change Manipulation Experiments. BioScience, 2013, 63, 763-767.	4.9	56
58	Invasibility of grassland and heath communities exposed to extreme weather events â€“ additive effects of diversity resistance and fluctuating physical environment. Oikos, 2008, 117, 1542-1554.	2.7	54
59	Geographic origin and past climatic experience influence the response to late spring frost in four common grass species in central Europe. Ecography, 2012, 35, 268-275.	4.5	54
60	Plant responses to climatic extremes: withinâ€species variation equals amongâ€species variation. Global Change Biology, 2016, 22, 449-464.	9.5	54
61	Distribution ranges and spring phenology explain late frost sensitivity in 170 woody plants from the Northern Hemisphere. Global Ecology and Biogeography, 2016, 25, 1061-1071.	5.8	51
62	Shifts in the elemental composition of plants during a very severe drought. Environmental and Experimental Botany, 2015, 111, 63-73.	4.2	50
63	Low resistance but high resilience in growth of a major deciduous forest tree (Fagus sylvatica L.) in response to late spring frost in southern Germany. Trees - Structure and Function, 2017, 31, 743-751.	1.9	47
64	From Understanding to Sustainable Use of Peatlands: The WETSCAPES Approach. Soil Systems, 2020, 4, 14.	2.6	45
65	Late to bed, late to riseâ€”Warmer autumn temperatures delay spring phenology by delaying dormancy. Global Change Biology, 2021, 27, 5806-5817.	9.5	43
66	Plant community composition affects the species biogeochemical niche. Ecosphere, 2017, 8, e01801.	2.2	42
67	Uniform drought and warming responses in Pinus nigra provenances despite specific overall performances. Forest Ecology and Management, 2012, 270, 200-208.	3.2	41
68	Drought Effects in Climate Change Manipulation Experiments: Quantifying the Influence of Ambient Weather Conditions and Rain-out Shelter Artifacts. Ecosystems, 2017, 20, 301-315.	3.4	41
69	Lowest drought sensitivity and decreasing growth synchrony towards the dry distribution margin of European beech. Journal of Biogeography, 2020, 47, 1910-1921.	3.0	40
70	Recurring weather extremes alter the flowering phenology of two common temperate shrubs. International Journal of Biometeorology, 2013, 57, 579-588.	3.0	38
71	Snow removal reduces annual cellulose decomposition in a riparian boreal forest. Canadian Journal of Soil Science, 2013, 93, 427-433.	1.2	38
72	Winter climate controls soil carbon dynamics during summer in boreal forests. Environmental Research Letters, 2013, 8, 024017.	5.2	38

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73	How plot shape and spatial arrangement affect plant species richness counts: implications for sampling design and rarefaction analyses. Journal of Vegetation Science, 2016, 27, 692-703.	2.2	38
74	A single drought event of 100â€year recurrence enhances subsequent carbon uptake and changes carbon allocation in experimental grassland communities. Journal of Plant Nutrition and Soil Science, 2008, 171, 681-689.	1.9	37
75	Winter matters: Sensitivity to winter climate and cold events increases towards the cold distribution margin of European beech (Fagus sylvatica L.). Journal of Biogeography, 2018, 45, 2779-2790.	3.0	37
76	Winter warming is ecologically more relevant than summer warming in a cool-temperate grassland. Scientific Reports, 2019, 9, 14632.	3.3	36
77	Evidence for genetic differentiation and divergent selection in an autotetraploid forage grass (Arrhenatherum elatius). Theoretical and Applied Genetics, 2010, 120, 1151-1162.	3.6	34
78	A Comparison of Genetic Diversity and Phenotypic Plasticity among European Beech (Fagus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54 Manipulation. International Journal of Plant Sciences, 2015, 176, 232-244.	1.3	32
79	Winter warming effects on tundra shrub performance are speciesâ€specific and dependent on spring conditions. Journal of Ecology, 2018, 106, 599-612.	4.0	32
80	Potential consequences of climate warming for tropical plant species in high mountains of southern Ethiopia. Diversity and Distributions, 2010, 16, 593-605.	4.1	30
81	Climatic extremes lead to species-specific legume facilitation in an experimental temperate grassland. Plant and Soil, 2014, 379, 161-175.	3.7	30
82	Field experiments underestimate aboveground biomass response to drought. Nature Ecology and Evolution, 2022, 6, 540-545.	7.8	30
83	Importance of Seasonality for the Response of a Mesic Temperate Grassland to Increased Precipitation Variability and Warming. Ecosystems, 2017, 20, 1454-1467.	3.4	29
84	Determinants of community compositional change are equally affected by global change. Ecology Letters, 2021, 24, 1892-1904.	6.4	27
85	Temporal photoperiod sensitivity and forcing requirements for budburst in temperate tree seedlings. Agricultural and Forest Meteorology, 2018, 248, 82-90.	4.8	25
86	Winter warming pulses affect the development of planted temperate grassland and dwarf-shrub heath communities. Plant Ecology and Diversity, 2011, 4, 13-21.	2.4	24
87	Winter warming pulses differently affect plant performance in temperate heathland and grassland communities. Ecological Research, 2014, 29, 561-570.	1.5	21
88	Wetter is Better: Rewetting of Minerotrophic Peatlands Increases Plant Production and Moves Them Towards Carbon Sinks in a Dry Year. Ecosystems, 2021, 24, 1093-1109.	3.4	21
89	Invader presence disrupts the stabilizing effect of species richness in plant community recovery after drought. Global Change Biology, 2020, 26, 3539-3551.	9.5	20
90	Relative effects of temperature vs. photoperiod on growth and cold acclimation of northern and southern ecotypes of the grass Arrhenatherum elatius. Environmental and Experimental Botany, 2014, 106, 189-196.	4.2	19

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91	Forest understory vegetation is more related to soil than to climate towards the cold distribution margin of European beech. Journal of Vegetation Science, 2019, 30, 746-755.	2.2	19
92	Soilâ€moisture change caused by experimental extreme summer drought is similar to natural interâ€annual variation in a loamy sand in Central Europe. Journal of Plant Nutrition and Soil Science, 2013, 176, 27-34.	1.9	18
93	Desert Vegetation Forty Years after an Oil Spill. Journal of Environmental Quality, 2017, 46, 568-575.	2.0	18
94	Increased Soil Frost Versus Summer Drought as Drivers of Plant Biomass Responses to Reduced Precipitation: Results from a Globally Coordinated Field Experiment. Ecosystems, 2018, 21, 1432-1444.	3.4	18
95	Autumnal warming does not change root phenology in two contrasting vegetation types of subarctic tundra. Plant and Soil, 2018, 424, 145-156.	3.7	18
96	Absence of soil frost affects plant-soil interactions in temperate grasslands. Plant and Soil, 2013, 371, 559-572.	3.7	17
97	Increased winter soil temperature variability enhances nitrogen cycling and soil biotic activity in temperate heathland and grassland mesocosms. Biogeosciences, 2014, 11, 7051-7060.	3.3	17
98	Effects of extreme weather events and legume presence on mycorrhization of Plantago lanceolata and Holcus lanatus in the field. Plant Biology, 2016, 18, 262-270.	3.8	17
99	Phenotypic plasticity closely linked to climate at origin and resulting in increased mortality under warming and frost stress in a common grass. Ecology and Evolution, 2019, 9, 1344-1352.	1.9	17
100	Vegetation pattern divergence between dry and wet season in a semiarid savanna â€“ Spatio-temporal dynamics of plant diversity in northwest Namibia. Journal of Arid Environments, 2010, 74, 1516-1524.	2.4	16
101	Trait variation in response to varying winter temperatures, diversity patterns and signatures of selection along the latitudinal distribution of the widespread grassland plant Arrhenatherum elatius. Ecology and Evolution, 2017, 7, 3268-3280.	1.9	16
102	Grassland experiments under climatic extremes: Reproductive fitness versus biomass. Environmental and Experimental Botany, 2017, 144, 68-75.	4.2	16
103	Slow understory redevelopment after clearcutting in high mountain forests. Biodiversity and Conservation, 2008, 17, 2339-2355.	2.6	15
104	Plant community composition is a crucial factor for heath performance under precipitation extremes. Journal of Vegetation Science, 2015, 26, 975-984.	2.2	15
105	Phenological Sensitivity of Early and Late Flowering Species Under Seasonal Warming and Altered Precipitation in a Seminatural Temperate Grassland Ecosystem. Ecosystems, 2018, 21, 1306-1320.	3.4	15
106	The invasive Opuntia ficus-indica homogenizes native plant species compositions in the highlands of Eritrea. Biological Invasions, 2021, 23, 433-442.	2.4	15
107	High plasticity in germination and establishment success in the dominant forest tree Fagus sylvatica across Europe. Global Ecology and Biogeography, 2021, 30, 1583-1596.	5.8	15
108	Soils from cold and snowy temperate deciduous forests release more nitrogen and phosphorus after soil freezeâ€“thaw cycles than soils from warmer, snow-poor conditions. Biogeosciences, 2020, 17, 4103-4117.	3.3	15

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109	Drought inhibits synergistic interactions of native and exotic litter mixtures during decomposition in temperate grasslands. Plant and Soil, 2017, 415, 257-268.	3.7	13
110	Understanding ecosystems of the future will require more than realistic climate change experiments â€“ A response to Korell et al.. Global Change Biology, 2020, 26, e6-e7.	9.5	12
111	Species-specific effects of thermal stress on the expression of genetic variation across a diverse group of plant and animal taxa under experimental conditions. Heredity, 2021, 126, 23-37.	2.6	11
112	A continental comparison indicates long-term effects of forest management on understory diversity in coniferous forests¹This article is one of a selection of papers from the 7th International Conference on Disturbance Dynamics in Boreal Forests.. Canadian Journal of Forest Research, 2012, 42, 1239-1252.	1.7	10
113	The Ecological Importance of Winter in Temperate, Boreal, and Arctic Ecosystems in Times of Climate Change. Progress in Botany Fortschritte Der Botanik, 2019, , 377-399.	0.3	10
114	Ecosystem Processes Show Uniform Sensitivity to Winter Soil Temperature Change Across a Gradient from Central to Cold Marginal Stands of a Major Temperate Forest Tree. Ecosystems, 2021, 24, 1545-1560.	3.4	10
115	Drought responses of Arrhenatherum elatius grown in plant assemblages of varying species richness. Acta Oecologica, 2012, 39, 11-17.	1.1	9
116	Patterns and drivers in spring and autumn phenology differ above- and belowground in four ecosystems under the same macroclimatic conditions. Plant and Soil, 2019, 445, 217-229.	3.7	9
117	On the influence of provenance to soil quality enhanced stress reaction of young beech trees to summer drought. Ecology and Evolution, 2016, 6, 8276-8290.	1.9	8
118	Potentially peatâ€forming biomass of fen sedges increases with increasing nutrient levels. Functional Ecology, 2021, 35, 1579-1595.	3.6	8
119	Eukaryotic rather than prokaryotic microbiomes change over seasons in rewetted fen peatlands. FEMS Microbiology Ecology, 2021, 97, .	2.7	8
120	Can nutrient uptake by Carex counteract eutrophication in fen peatlands?. Science of the Total Environment, 2021, 785, 147276.	8.0	8
121	Jet stream position explains regional anomalies in European beech forest productivity and tree growth. Nature Communications, 2022, 13, 2015.	12.8	8
122	Short-term carbon dynamics in a temperate grassland and heathland ecosystem exposed to 104 days of drought followed by irrigation. Isotopes in Environmental and Health Studies, 2018, 54, 41-62.	1.0	7
123	Donâ€™t drink it, bury it: comparing decomposition rates with the tea bag index is possible without prior leaching. Plant and Soil, 2021, 465, 613-621.	3.7	7
124	Inter-Individual Budburst Variation in Fagus sylvatica Is Driven by Warming Rate. Frontiers in Plant Science, 2022, 13, 853521.	3.6	7
125	Potentials of Natural Tree Regeneration after Clearcutting in Subalpine Forests. Western Journal of Applied Forestry, 2008, 23, 46-52.	0.5	6
126	Nitrogen leaching is enhanced after a winter warm spell but mainly controlled by vegetation composition in temperate zone mesocosms. Plant and Soil, 2015, 396, 85-96.	3.7	6

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127	Positive sportâ€“biosphere interactions? â€” Cross-country skiing delays spring phenology of meadow vegetation. Basic and Applied Ecology, 2018, 27, 30-40.	2.7	6
128	Rewetting prolongs root growing season in minerotrophic peatlands and mitigates negative drought effects. Journal of Applied Ecology, 0, , .	4.0	6
129	Intraspecific variation in response to magnitude and frequency of freeze-thaw cycles in a temperate grass. AoB PLANTS, 2018, 10, plx068.	2.3	5
130	Common Garden Experiments to Characterize Cold Acclimation Responses in Plants from Different Climatic Regions. Methods in Molecular Biology, 2014, 1166, 65-78.	0.9	5
131	Identification and Measurement of Individual Roots in Minirhizotron Images of Dense Root Systems. , 2021, , .		4
132	Ecotype-specific improvement of nitrogen status in European grasses after drought combined with rewetting. Acta Oecologica, 2016, 77, 118-127.	1.1	3
133	15N tracer enrichment in response to winter soil temperature manipulation differs between canopy trees and juveniles. Trees - Structure and Function, 2021, 35, 325-331.	1.9	3
134	Root-Associated Mycobiomes of Common Temperate Plants (Calluna vulgaris and Holcus lanatus) Are Strongly Affected by Winter Climate Conditions. Microbial Ecology, 2021, 82, 403-415.	2.8	3
135	Management options for the conversion of allochthonous coniferous forest patches towards more natural species composition in the Vorpommersche Boddenlandschaft National Park, NE Germany. Baltic Forestry, 2021, 27, .	0.5	3
136	Differential Thermal Analysis: A Fast Alternative to Measurements. Methods in Molecular Biology, 2020, 2156, 23-31.	0.9	3
137	Winter Climate Change and Ecological Implications in Temperate Systems. , 2013, , 29-40.		3
138	A new generation of climate-change experiments: events, not trends. , 2007, 5, 365.		3
139	A transplantation experiment along climatic gradients suggests limitations of experimental warming manipulations. Climate Research, 2014, 60, 63-71.	1.1	2
140	A new generation of climate-change experiments: events, not trends. , 2007, 5, 365.		1
141	Upward shift of alpine plants increases floristic similarity of mountain summits. Journal of Vegetation Science, 2007, 18, 711.	2.2	1