Christian Rixen

List of Publications by Year
in descending order

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102	11,299	26630 56	31849 101
papers	citations	h-index	g-index

104	104	104	12173
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Shrub expansion in tundra ecosystems: dynamics, impacts and research priorities. Environmental Research Letters, 2011, 6, 045509.	5.2	1,021
2	Global assessment of experimental climate warming on tundra vegetation: heterogeneity over space and time. Ecology Letters, 2012, 15, 164-175.	6.4	764
3	Plot-scale evidence of tundra vegetation change and links to recent summer warming. Nature Climate Change, 2012, 2, 453-457.	18.8	745
4	Accelerated increase in plant species richness on mountain summits is linked to warming. Nature, 2018, 556, 231-234.	27.8	580
5	Plant functional trait change across a warming tundra biome. Nature, 2018, 562, 57-62.	27.8	451
6	Climate sensitivity of shrub growth across the tundra biome. Nature Climate Change, 2015, 5, 887-891.	18.8	447
7	A review of snow manipulation experiments in Arctic and alpine tundra ecosystems. Polar Research, 2010, 29, 95-109.	1.6	316
8	BioTIME: A database of biodiversity time series for the Anthropocene. Global Ecology and Biogeography, 2018, 27, 760-786.	5.8	289
9	Facilitative plant interactions and climate simultaneously drive alpine plant diversity. Ecology Letters, 2014, 17, 193-202.	6.4	274
10	Experiment, monitoring, and gradient methods used to infer climate change effects on plant communities yield consistent patterns. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 448-452.	7.1	200
11	Snow avalanche disturbances in forest ecosystemsâ€"State of research and implications for management. Forest Ecology and Management, 2009, 257, 1883-1892.	3.2	189
12	Higher plant diversity enhances soil stability in disturbed alpine ecosystems. Plant and Soil, 2009, 324, 91-102.	3.7	186
13	Effects of ski piste preparation on alpine vegetation. Journal of Applied Ecology, 2005, 42, 306-316.	4.0	178
14	How alpine plant growth is linked to snow cover and climate variability. Journal of Geophysical Research, 2008, 113, .	3.3	175
15	Greater temperature sensitivity of plant phenology at colder sites: implications for convergence across northern latitudes. Global Change Biology, 2017, 23, 2660-2671.	9.5	171
16	Shorter snow cover duration since 1970 in the Swiss Alps due to earlier snowmelt more than to later snow onset. Climatic Change, 2016, 139, 637-649.	3.6	160
17	Alpine cushion plants inhibit the loss of phylogenetic diversity in severe environments. Ecology Letters, 2013, 16, 478-486.	6.4	151
18	Biodiversity simultaneously enhances the production and stability of community biomass, but the effects are independent. Ecology, 2013, 94, 1697-1707.	3.2	146

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19	Increase in the risk of exposure of forest and fruit trees to spring frosts at higher elevations in Switzerland over the last four decades. Agricultural and Forest Meteorology, 2018, 248, 60-69.	4.8	142
20	Increased spring freezing vulnerability for alpine shrubs under early snowmelt. Oecologia, 2014, 175, 219-229.	2.0	139
21	Advanced snowmelt causes shift towards positive neighbour interactions in a subarctic tundra community. Global Change Biology, 2006, 12, 1496-1506.	9.5	136
22	SoilTemp: A global database of nearâ€surface temperature. Global Change Biology, 2020, 26, 6616-6629.	9.5	122
23	Methods for measuring arctic and alpine shrub growth: A review. Earth-Science Reviews, 2015, 140, 1-13.	9.1	112
24	Short-term responses of ecosystem carbon fluxes to experimental soil warming at the Swiss alpine treeline. Biogeochemistry, 2010, 97, 7-19.	3.5	111
25	Factors driving mortality and growth at treeline: a 30â€year experiment of 92â€‰000 conifers. Ecology, 2012, 93, 389-401.	3.2	111
26	The snow and the willows: earlier spring snowmelt reduces performance in the lowâ€lying alpine shrub Salix herbacea. Journal of Ecology, 2016, 104, 1041-1050.	4.0	110
27	The rich sides of mountain summits â€“ a panâ€European view on aspect preferences of alpine plants. Journal of Biogeography, 2016, 43, 2261-2273.	3.0	107
28	Winter Tourism and Climate Change in the Alps: An Assessment of Resource Consumption, Snow Reliability, and Future Snowmaking Potential. Mountain Research and Development, 2011, 31, 229-236.	1.0	106
29	Phenological and elevational shifts of plants, animals and fungi under climate change in the <scp>E</scp>uropean <scp>A</scp>lps. Biological Reviews, 2021, 96, 1816-1835.	10.4	102
30	Small-scale patterns in snowmelt timing affect gene flow and the distribution of genetic diversity in the alpine dwarf shrub Salix herbacea. Heredity, 2014, 113, 233-239.	2.6	101
31	The Response of the Alpine Dwarf Shrub Salix herbacea to Altered Snowmelt Timing: Lessons from a Multi-Site Transplant Experiment. PLoS ONE, 2015, 10, e0122395.	2.5	101
32	Alpine Grassland Phenology as Seen in AVHRR, VEGETATION, and MODIS NDVI Time Series - a Comparison with In Situ Measurements. Sensors, 2008, 8, 2833-2853.	3.8	100
33	Evolutionary potential in the Alpine: trait heritabilities and performance variation of the dwarf willow Salix herbacea from different elevations and microhabitats. Ecology and Evolution, 2016, 6, 3940-3952.	1.9	98
34	Soil warming opens the nitrogen cycle at the alpine treeline. Global Change Biology, 2017, 23, 421-434.	9.5	96
35	Elevation gradient of successful plant traits for colonizing alpine summits under climate change. Environmental Research Letters, 2013, 8, 024043.	5.2	95
36	Does artificial snow production affect soil and vegetation of ski pistes? A review. Perspectives in Plant Ecology, Evolution and Systematics, 2003, 5, 219-230.	2.7	92

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37	Small-scale drivers: the importance of nutrient availability and snowmelt timing on performance of the alpine shrub Salix herbacea. Oecologia, 2016, 180, 1015-1024.	2.0	92
38	The interacting effects of land use change, climate change and suppression of natural disturbances on landscape forest structure in the Swiss Alps. Oikos, 2011, 120, 216-225.	2.7	91
39	The oldest monitoring site of the Alps revisited: accelerated increase in plant species richness on Piz Linard summit since 1835. Plant Ecology and Diversity, 2013, 6, 447-455.	2.4	84
40	Warming shortens flowering seasons of tundra plant communities. Nature Ecology and Evolution, 2019, 3, 45-52.	7.8	79
41	The Soil Microbiome of GLORIA Mountain Summits in the Swiss Alps. Frontiers in Microbiology, 2019, 10, 1080.	3.5	78
42	Evidence of enhanced freezing damage in treeline plants during six years of CO₂ enrichment and soil warming. Oikos, 2012, 121, 1532-1543.	2.7	77
43	An alpine treeline in a carbon dioxide-rich world: synthesis of a nine-year free-air carbon dioxide enrichment study. Oecologia, 2013, 171, 623-637.	2.0	73
44	Using historical plant surveys to track biodiversity on mountain summits. Plant Ecology and Diversity, 2011, 4, 415-425.	2.4	72
45	Reduced early growing season freezing resistance in alpine treeline plants under elevated atmospheric CO₂. Global Change Biology, 2010, 16, 1057-1070.	9.5	71
46	New barcoded primers for efficient retrieval of cercozoan sequences in highâ€throughput environmental diversity surveys, with emphasis on worldwide biological soil crusts. Molecular Ecology Resources, 2018, 18, 229-239.	4.8	71
47	Linking traits between plants and invertebrate herbivores to track functional effects of landâ€use changes. Journal of Vegetation Science, 2013, 24, 949-962.	2.2	68
48	Interrill erosion at disturbed alpine sites: Effects of plant functional diversity and vegetation cover. Basic and Applied Ecology, 2010, 11, 619-626.	2.7	66
49	Growth and community responses of alpine dwarf shrubs to in situ CO₂ enrichment and soil warming. New Phytologist, 2011, 191, 806-818.	7.3	66
50	Experimental soil warming shifts the fungal community composition at the alpine treeline. New Phytologist, 2017, 215, 766-778.	7.3	66
51	Altered Snow Density and Chemistry Change Soil Nitrogen Mineralization and Plant Growth. Arctic, Antarctic, and Alpine Research, 2008, 40, 568-575.	1.1	65
52	Soil warming and <scp>CO</scp>₂ enrichment induce biomass shifts in alpine tree line vegetation. Global Change Biology, 2015, 21, 2005-2021.	9.5	65
53	Changes in alpine plant growth under future climate conditions. Biogeosciences, 2010, 7, 2013-2024.	3.3	64
54	Ground Temperatures under Ski Pistes with Artificial and Natural Snow. Arctic, Antarctic, and Alpine Research, 2004, 36, 419-427.	1.1	61

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55	Improved water retention links high species richness with increased productivity in arctic tundra moss communities. Oecologia, 2005, 146, 287-299.	2.0	60
56	The relationship between plant species richness and soil aggregate stability can depend on disturbance. Plant and Soil, 2012, 355, 87-102.	3.7	60
57	With a little help from my friends: Community facilitation increases performance in the dwarf shrub Salix herbacea. Basic and Applied Ecology, 2015, 16, 202-209.	2.7	59
58	Functional traits and root morphology of alpine plants. Annals of Botany, 2011, 108, 537-545.	2.9	57
59	Tundra Trait Team: A database of plant traits spanning the tundra biome. Global Ecology and Biogeography, 2018, 27, 1402-1411.	5.8	57
60	Snow Fungiâ€"Induced Mortality of Pinus cembra at the Alpine Treeline: Evidence from Plantations. Arctic, Antarctic, and Alpine Research, 2013, 45, 455-470.	1.1	56
61	Experimental warming differentially affects vegetative and reproductive phenology of tundra plants. Nature Communications, 2021, 12, 3442.	12.8	56
62	SGH: stress or strain gradient hypothesis? Insights from an elevation gradient on the roof of the world. Annals of Botany, 2017, 120, 29-38.	2.9	56
63	Winter climate change at different temporal scales in Vaccinium myrtillus, an Arctic and alpine dwarf shrub. Polar Research, 2010, 29, 85-94.	1.6	55
64	Long-term impacts of ski piste management on alpine vegetation and soils. Journal of Applied Ecology, 2011, 48, 906-915.	4.0	54
65	The effects of foundation species on community assembly: a global study on alpine cushion plant communities. Ecology, 2015, 96, 2064-2069.	3.2	53
66	Speciesâ€specific tree growth responses to 9â€ƒyears of CO₂ enrichment at the alpine treeline. Journal of Ecology, 2011, 99, 383-394.	4.0	50
67	Winter Tourism, Climate Change, and Snowmaking in the Swiss Alps: Tourists' Attitudes and Regional Economic Impacts. Mountain Research and Development, 2011, 31, 357-362.	1.0	50
68	Enough space in a warmer world? Microhabitat diversity and smallâ€scale distribution of alpine plants on mountain summits. Diversity and Distributions, 2018, 24, 252-261.	4.1	49
69	Shrub growth and plant diversity along an elevation gradient: Evidence of indirect effects of climate on alpine ecosystems. PLoS ONE, 2018, 13, e0196653.	2.5	46
70	Impact of artificial snow and ski-slope grooming on snowpack properties and soil thermal regime in a sub-alpine ski area. Annals of Glaciology, 2004, 38, 314-318.	1.4	45
71	Natural avalanche disturbance shapes plant diversity and species composition in subalpine forest belt. Journal of Vegetation Science, 2007, 18, 735-742.	2.2	43
72	Observation bias and its causes in botanical surveys on highâ€alpine summits. Journal of Vegetation Science, 2015, 26, 191-200.	2.2	43

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73	Winters are changing: snow effects on Arctic and alpine tundra ecosystems. Arctic Science, 2022, 8, 572-608.	2.3	43
74	Directional turnover towards largerâ€ranged plants over time and across habitats. Ecology Letters, 2022, 25, 466-482.	6.4	39
75	Changes in forest structure and in the relative importance of climatic stress as a result of suppression of avalanche disturbances. Forest Ecology and Management, 2006, 223, 66-74.	3.2	37
76	Biotic and abiotic drivers of tree seedling recruitment across an alpine treeline ecotone. Scientific Reports, 2018, 8, 10894.	3.3	37
77	Growth and Phenology of Three Dwarf Shrub Species in a Six-Year Soil Warming Experiment at the Alpine Treeline. PLoS ONE, 2014, 9, e100577.	2.5	36
78	Responses of soil extracellular enzyme activities to experimental warming and CO2 enrichment at the alpine treeline. Plant and Soil, 2017, 416, 527-537.	3.7	31
79	Non-equilibrium in Alpine Plant Assemblages: Shifts in Europeâ€™s Summit Floras. Advances in Global Change Research, 2017, , 285-303.	1.6	28
80	Axial xylem architecture of Larix decidua exposed to CO 2 enrichment and soil warming at the tree line. Functional Ecology, 2018, 32, 273-287.	3.6	27
81	â€˜Hearingâ€™ alpine plants growing after snowmelt: ultrasonic snow sensors provide long-term series of alpine plant phenology. International Journal of Biometeorology, 2017, 61, 349-361.	3.0	26
82	Faster, higher, more? Past, present and future dynamics of alpine and arctic flora under climate change. Alpine Botany, 2014, 124, 77-79.	2.4	24
83	Unchanged risk of frost exposure for subalpine and alpine plants after snowmelt in Switzerland despite climate warming. International Journal of Biometeorology, 2018, 62, 1755-1762.	3.0	23
84	Twelve years of low nutrient input stimulates growth of trees and dwarf shrubs in the treeline ecotone. Journal of Ecology, 2019, 107, 768-780.	4.0	23
85	Land surface phenology and greenness in Alpine grasslands driven by seasonal snow and meteorological factors. Science of the Total Environment, 2020, 725, 138380.	8.0	22
86	Intraspecific trait variation in alpine plants relates to their elevational distribution. Journal of Ecology, 2022, 110, 860-875.	4.0	21
87	Management, winter climate and plantâ€“soil feedbacks on ski slopes: a synthesis. Ecological Research, 2014, 29, 583-592.	1.5	20
88	Bud freezing resistance in alpine shrubs across snow depth gradients. Environmental and Experimental Botany, 2015, 118, 95-101.	4.2	20
89	Soil erosion and organic carbon export by wet snow avalanches. Cryosphere, 2014, 8, 651-658.	3.9	19
90	Species removal and experimental warming in a subarctic tundra plant community. Oecologia, 2009, 161, 173-186.	2.0	18

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91	CO 2 enrichment alters diurnal stem radius fluctuations of 36â€yrâ€old L arix decidua growing at the alpine tree line. New Phytologist, 2014, 202, 1237-1248.	7.3	16
92	A plant diversityÃ—water chemistry experiment in subalpine grassland. Perspectives in Plant Ecology, Evolution and Systematics, 2008, 10, 51-61.	2.7	14
93	Local trampling disturbance effects on alpine plant populations and communities: Negative implications for climate change vulnerability. Ecology and Evolution, 2018, 8, 7921-7935.	1.9	13
94	A common soil temperature threshold for the upper limit of alpine grasslands in European mountains. Alpine Botany, 2021, 131, 41-52.	2.4	13
95	Xylem anatomical and growth responses of the dwarf shrub Vaccinium myrtillus to experimental CO2 enrichment and soil warming at treeline. Science of the Total Environment, 2018, 642, 1172-1183.	8.0	12
96	Human trampling disturbance exerts different ecological effects at contrasting elevational range limits. Journal of Applied Ecology, 2019, 56, 1389-1399.	4.0	12
97	Climate Change Affects Vegetation Differently on Siliceous and Calcareous Summits of the European Alps. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	12
98	Upward range shift of a dominant alpine shrub related to 50Âyears of snow cover change. Remote Sensing of Environment, 2022, 268, 112773.	11.0	11
99	Sensitivity of recruitment and growth of alpine treeline birch to elevated temperature. Agricultural and Forest Meteorology, 2021, 304-305, 108403.	4.8	10
100	The tundra phenology database: more than two decades of tundra phenology responses to climate change. Arctic Science, 2022, 8, 1026-1039.	2.3	7
101	Glaziale und periglaziale LebensrÃume im Raum Obergurgl. Mountain Research and Development, 2012, 32, 257.	1.0	0
102	Zwei AlpentÃler im Klimawandel. Mountain Research and Development, 2012, 32, 256.	1.0	0