Annette Menzel

List of Publications by Year
in descending order

224 papers	26,350 citations	28274 55 h-index	6471 157 g-index
234 all docs	234 docs citations	234 times ranked	24615 citing authors

#	Article	IF	Citations
1	Ecological responses to recent climate change. Nature, 2002, 416, 389-395.	27.8	7,926
2	European phenological response to climate change matches the warming pattern. Global Change Biology, 2006, 12, 1969-1976.	9.5	2,412
3	Shifting plant phenology in response to global change. Trends in Ecology and Evolution, 2007, 22, 357-365.	8.7	1,746
4	Growing season extended in Europe. Nature, 1999, 397, 659-659.	27.8	1,251
5	Attributing physical and biological impacts to anthropogenic climate change. Nature, 2008, 453, 353-357.	27.8	1,210
6	Declining global warming effects on the phenology of spring leaf unfolding. Nature, 2015, 526, 104-107.	27.8	637
7	Trends in phenological phases in Europe between 1951 and 1996. International Journal of Biometeorology, 2000, 44, 76-81.	3.0	427
8	Observed changes in seasons: an overview. International Journal of Climatology, 2002, 22, 1715-1725.	3.5	411
9	A plant's perspective of extremes: terrestrial plant responses to changing climatic variability. Global Change Biology, 2013, 19, 75-89.	9.5	393
10	Phenology: Its Importance to the Global Change Community. Climatic Change, 2002, 54, 379-385.	3.6	323
11	Chilling outweighs photoperiod in preventing precocious spring development. Global Change Biology, 2014, 20, 170-182.	9.5	304
12	Plant Phenological Anomalies in Germany and their Relation to Air Temperature and NAO. Climatic Change, 2003, 57, 243-263.	3.6	297
13	Changes to Airborne Pollen Counts across Europe. PLoS ONE, 2012, 7, e34076.	2.5	281
14	Patterns of drought tolerance in major European temperate forest trees: climatic drivers and levels of variability. Global Change Biology, 2014, 20, 3767-3779.	9.5	267
15	Heat and drought 2003 in Europe: a climate synthesis. Annals of Forest Science, 2006, 63, 569-577.	2.0	253
16	Trends and temperature response in the phenology of crops in Germany. Global Change Biology, 2007, 13, 1737-1747.	9.5	232
17	Changes in European spring phenology. International Journal of Climatology, 2002, 22, 1727-1738.	3.5	229
18	Spatial and temporal variability of the phenological seasons in Germany from 1951 to 1996. Global Change Biology, 2001, 7, 657-666.	9.5	226

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19	Recent spring phenology shifts in western <scp>C</scp>entral <scp>E</scp>urope based on multiscale observations. Global Ecology and Biogeography, 2014, 23, 1255-1263.	5.8	208
20	Responses of leaf colouring in four deciduous tree species to climate and weather in Germany. Climate Research, 2006, 32, 253-267.	1.1	200
21	Altered geographic and temporal variability in phenology in response to climate change. Global Ecology and Biogeography, 2006, 15, 498-504.	5.8	195
22	Climate change fingerprints in recent European plant phenology. Global Change Biology, 2020, 26, 2599-2612.	9.5	179
23	Interactions between temperature and drought in global and regional crop yield variability during 1961-2014. PLoS ONE, 2017, 12, e0178339.	2.5	174
24	Exceptional European warmth of autumn 2006 and winter 2007: Historical context, the underlying dynamics, and its phenological impacts. Geophysical Research Letters, 2007, 34, .	4.0	173
25	Variations of the climatological growing season (1951-2000) in Germany compared with other countries. International Journal of Climatology, 2003, 23, 793-812.	3.5	159
26	High Environmental Ozone Levels Lead to Enhanced Allergenicity of Birch Pollen. PLoS ONE, 2013, 8, e80147.	2.5	147
27	Trends of spring time frost events and phenological dates in Central Europe. Theoretical and Applied Climatology, 2003, 74, 41-51.	2.8	143
28	Projecting Tree Species Composition Changes of European Forests for 2061â€"2090 Under RCP 4.5 and RCP 8.5 Scenarios. Frontiers in Plant Science, 2018, 9, 1986.	3.6	133
29	Impact of Pollen on Human Health: More Than Allergen Carriers?. International Archives of Allergy and Immunology, 2003, 131, 1-13.	2.1	126
30	Bayesian analysis of climate change impacts in phenology. Global Change Biology, 2004, 10, 259-272.	9.5	110
31	Atmospheric mechanisms governing the spatial and temporal variability of phenological phases in central Europe. International Journal of Climatology, 2002, 22, 1739-1755.	3.5	106
32	Growth and resilience responses of Scots pine to extreme droughts across Europe depend on predrought growth conditions. Global Change Biology, 2020, 26, 4521-4537.	9.5	105
33	Urban phenological studies â€" Past, present, future. Environmental Pollution, 2015, 203, 250-261.	7.5	102
34	Changes in the phenology and composition of wine from Franconia, Germany. Climate Research, 2011, 50, 69-81.	1.1	102
35	Are Scots pine forest edges particularly prone to drought-induced mortality?. Environmental Research Letters, 2018, 13, 025001.	5.2	96
36	Impact of climate and drought events on the growth of Scots pine (Pinus sylvestris L.) provenances. Forest Ecology and Management, 2013, 307, 30-42.	3.2	93

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37	Climatically controlled reproduction drives interannual growth variability in a temperate tree species. Ecology Letters, 2018, 21, 1833-1844.	6.4	92
38	Changes in first flowering dates and flowering duration of 232 plant species on the island of Guernsey. Global Change Biology, 2014, 20, 3508-3519.	9.5	90
39	Climate-change-driven growth decline of European beech forests. Communications Biology, 2022, 5, 163.	4.4	89
40	Integration of flowering dates in phenology and pollen counts in aerobiology: analysis of their spatial and temporal coherence in Germany (1992â€“1999). International Journal of Biometeorology, 2006, 51, 49-59.	3.0	84
41	Three times greater weight of daytime than of nightâ€time temperature on leaf unfolding phenology in temperate trees. New Phytologist, 2016, 212, 590-597.	7.3	82
42	The influence of altitude and urbanisation on trends and mean dates in phenology (1980â€“2009). International Journal of Biometeorology, 2012, 56, 387-394.	3.0	78
43	Year-to-Year Variation in Release of Bet v 1 Allergen from Birch Pollen: Evidence for Geographical Differences between West and South Germany. International Archives of Allergy and Immunology, 2008, 145, 122-130.	2.1	77
44	Influence of altitude on phenology of selected plant species in the Alpine region (1971â€“2000). Climate Research, 2009, 39, 227-234.	1.1	77
45	Using digital camera images to analyse snowmelt and phenology of a subalpine grassland. Agricultural and Forest Meteorology, 2014, 198-199, 116-125.	4.8	75
46	The European Phenology Network. International Journal of Biometeorology, 2003, 47, 202-212.	3.0	74
47	From observations to experiments in phenology research: investigating climate change impacts on trees and shrubs using dormant twigs. Annals of Botany, 2015, 116, 889-897.	2.9	67
48	'SSW to NNE' - North Atlantic Oscillation affects the progress of seasons across Europe. Global Change Biology, 2005, 11, 909-918.	9.5	66
49	A 500 year pheno-climatological view on the 2003 heatwave in Europe assessed by grape harvest dates. Meteorologische Zeitschrift, 2005, 14, 75-77.	1.0	66
50	Using phenological cameras to track the green up in a cerrado savanna and its on-the-ground validation. Ecological Informatics, 2014, 19, 62-70.	5.2	65
51	Temperature response rates from long-term phenological records. Climate Research, 2005, 30, 21-28.	1.1	64
52	Different responses of multispecies tree ring growth to various drought indices across Europe. Dendrochronologia, 2017, 44, 1-8.	2.2	63
53	Patterns of late spring frost leaf damage and recovery in a European beech (Fagus sylvatica L.) stand in south-eastern Germany based on repeated digital photographs. Frontiers in Plant Science, 2015, 6, 110.	3.6	62
54	Climate-Induced Changes in Grapevine Yield and Must Sugar Content in Franconia (Germany) between 1805 and 2010. PLoS ONE, 2013, 8, e69015.	2.5	61

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55	Climate sensitivity and drought seasonality determine post-drought growth recovery of Quercus petraea and Quercus robur in Europe. Science of the Total Environment, 2021, 784, 147222.	8.0	61
56	Recent climate change: Long-term trends in meteorological forest fire danger in the Alps. Agricultural and Forest Meteorology, 2012, 162-163, 1-13.	4.8	57
57	Does humidity trigger tree phenology? Proposal for an air humidity based framework for bud development in spring. New Phytologist, 2014, 202, 350-355.	7.3	57
58	Geographical adaptation prevails over speciesâ€specific determinism in treesâ€™ vulnerability to climate change at Mediterranean rearâ€edge forests. Global Change Biology, 2019, 25, 1296-1314.	9.5	55
59	ClimateEU, scale-free climate normals, historical time series, and future projections for Europe. Scientific Data, 2020, 7, 428.	5.3	55
60	Impact of Urbanization on the Proteome of Birch Pollen and Its Chemotactic Activity on Human Granulocytes. International Archives of Allergy and Immunology, 2010, 151, 46-55.	2.1	52
61	Soil properties affect the drought susceptibility of Norway spruce. Dendrochronologia, 2017, 45, 81-89.	2.2	50
62	Effects of temperature, phase type and timing, location, and human density on plant phenological responses in Europe. Climate Research, 2009, 39, 235-248.	1.1	50
63	Linking altitudinal gradients and temperature responses of plant phenology in the Bavarian Alps. Plant Biology, 2013, 15, 57-69.	3.8	49
64	Effects of temperature and drought manipulations on seedlings of <scp>S</scp>cots pine provenances. Plant Biology, 2015, 17, 361-372.	3.8	47
65	Can we detect a nonlinear response to temperature in European plant phenology?. International Journal of Biometeorology, 2016, 60, 1551-1561.	3.0	47
66	Spatial and temporal variability of the phenological seasons in Germany from 1951 to 1996. Global Change Biology, 2001, 7, 657-666.	9.5	46
67	Bayesian analysis of the species-specific lengthening of the growing season in two European countries and the influence of an insect pest. International Journal of Biometeorology, 2008, 52, 209-218.	3.0	46
68	Effects of recent warm and cold spells on European plant phenology. International Journal of Biometeorology, 2011, 55, 921-932.	3.0	46
69	Large-scale weather types, forest fire danger, and wildfire occurrence in the Alps. Agricultural and Forest Meteorology, 2013, 168, 15-25.	4.8	46
70	Can spatial data substitute temporal data in phenological modelling? A survey using birch flowering. Tree Physiology, 2013, 33, 1256-1268.	3.1	46
71	Nutrient status: a missing factor in phenological and pollen research?. Journal of Experimental Botany, 2013, 64, 2081-2092.	4.8	46
72	The effects of short- and long-term air pollutants on plant phenology and leaf characteristics. Environmental Pollution, 2015, 206, 382-389.	7.5	45

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73	Time series modeling and central European temperature impact assessment of phenological records over the last 250 years. Journal of Geophysical Research, 2008, 113, .	3.3	44
74	Using phenology to assess urban heat islands in tropical and temperate regions. International Journal of Climatology, 2013, 33, 3141-3151.	3.5	44
75	Elevational response in leaf and xylem phenology reveals different prolongation of growing period of common beech and Norway spruce under warming conditions in the Bavarian Alps. European Journal of Forest Research, 2016, 135, 1011-1023.	2.5	43
76	Traits and climate are associated with first flowering day in herbaceous species along elevational gradients. Ecology and Evolution, 2018, 8, 1147-1158.	1.9	43
77	Increased waterâ€use efficiency translates into contrasting growth patterns of Scots pine and sessile oak at their southern distribution limits. Global Change Biology, 2018, 24, 1012-1028.	9.5	41
78	Building an automatic pollen monitoring network (ePIN): Selection of optimal sites by clustering pollen stations. Science of the Total Environment, 2019, 688, 1263-1274.	8.0	40
79	Spatial variability of photosynthetically active radiation in European beech and Norway spruce. Agricultural and Forest Meteorology, 2011, 151, 1226-1232.	4.8	39
80	Relationship between Spatiotemporal Variations of Climate, Snow Cover and Plant Phenology over the Alpsâ€"An Earth Observation-Based Analysis. Remote Sensing, 2018, 10, 1757.	4.0	39
81	Historical changes in the stomatal limitation of photosynthesis: empirical support for an optimality principle. New Phytologist, 2020, 225, 2484-2497.	7.3	39
82	Bayesian correlation between temperature and blossom onset data. Global Change Biology, 2006, 12, 1451-1459.	9.5	38
83	Phenological response of grassland species to manipulative snowmelt and drought along an altitudinal gradient. Journal of Experimental Botany, 2013, 64, 241-251.	4.8	38
84	Exploring Relationships among Tree-Ring Growth, Climate Variability, and Seasonal Leaf Activity on Varying Timescales and Spatial Resolutions. Remote Sensing, 2017, 9, 526.	4.0	38
85	Effects of Different Methods on the Comparison between Land Surface and Ground Phenologyâ€"A Methodological Case Study from South-Western Germany. Remote Sensing, 2016, 8, 753.	4.0	37
86	8 million phenological and sky images from 29 ecosystems from the Arctic to the tropics: the Phenological Eyes Network. Ecological Research, 2018, 33, 1091-1092.	1.5	37
87	Climate warming increases spring phenological differences among temperate trees. Global Change Biology, 2020, 26, 5979-5987.	9.5	37
88	Vertical variation in autumn leaf phenology of Fagus sylvatica L. in southern Germany. Agricultural and Forest Meteorology, 2015, 201, 176-186.	4.8	36
89	Recent and future climate extremes arising from changes to the bivariate distribution of temperature and precipitation in Bavaria, Germany. International Journal of Climatology, 2013, 33, 1687-1695.	3.5	35
90	Plant Phenological Changes. , 2001, , 123-137.		35

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91	Seasonal variation of birch and grass pollen loads and allergen release at two sites in the German Alps. Atmospheric Environment, 2015, 122, 83-93.	4.1	34
92	Asymmetric trends in seasonal temperature variability in instrumental records from ten stations in Switzerland, Germany and the <scp>UK</scp> from 1864 to 2012. International Journal of Climatology, 2016, 36, 13-27.	3.5	34
93	Effects of future climate change on birch abundance and their pollen load. Global Change Biology, 2021, 27, 5934-5949.	9.5	33
94	Analysis of long-term time series of the beginning of flowering by Bayesian function estimation. Meteorologische Zeitschrift, 2005, 14, 429-434.	1.0	32
95	The use of Bayesian analysis to detect recent changes in phenological events throughout the year. Agricultural and Forest Meteorology, 2006, 141, 179-191.	4.8	32
96	First flowering of windâ€pollinated species with the greatest phenological advances in Europe. Ecography, 2012, 35, 1017-1023.	4.5	32
97	Large-scale genetic structure and drought-induced effects on European Scots pine (Pinus sylvestris L.) seedlings. European Journal of Forest Research, 2013, 132, 481-496.	2.5	32
98	Spatial variation in onset dates and trends in phenology across Europe. Climate Research, 2009, 39, 249-260.	1.1	32
99	Vertical variability of spectral ratios in a mature mixed forest stand. Agricultural and Forest Meteorology, 2011, 151, 1096-1105.	4.8	31
100	Above-Ground Dimensions and Acclimation Explain Variation in Drought Mortality of Scots Pine Seedlings from Various Provenances. Frontiers in Plant Science, 2016, 7, 1014.	3.6	31
101	Diverging Drought Resistance of Scots Pine Provenances Revealed by Infrared Thermography. Frontiers in Plant Science, 2016, 7, 1247.	3.6	31
102	Spatio-temporal investigation of flowering dates and pollen counts in the topographically complex Zugspitze area on the Germanâ€"Austrian border. Aerobiologia, 2012, 28, 541-556.	1.7	30
103	Temperature sensitivity of Swiss and British plant phenology from 1753 to 1958. Climate Research, 2009, 39, 179-190.	1.1	30
104	Climatic marginality: a new metric for the susceptibility of tree species to warming exemplified by Fagus sylvatica (L.) and Ellenbergâ€™s quotient. European Journal of Forest Research, 2016, 135, 137-152.	2.5	29
105	Detecting plant seasonality from webcams using Bayesian multiple change point analysis. Agricultural and Forest Meteorology, 2013, 168, 177-185.	4.8	28
106	Characterizing Alpine pyrogeography from fire statistics. Applied Geography, 2018, 98, 87-99.	3.7	28
107	Large-scale atmospheric circulation enhances the Mediterranean East-West tree growth contrast at rear-edge deciduous forests. Agricultural and Forest Meteorology, 2017, 239, 86-95.	4.8	27
108	Nutrients and water availability constrain the seasonality of vegetation activity in a Mediterranean ecosystem. Global Change Biology, 2020, 26, 4379-4400.	9.5	27

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109	Effects of extreme spring temperatures on urban phenology and pollen production: a case study in Munich and Ingolstadt. Climate Research, 2011, 49, 101-112.	1.1	27
110	Agricultural Drought Detection with MODIS Based Vegetation Health Indices in Southeast Germany. Remote Sensing, 2021, 13, 3907.	4.0	27
111	Quantifying the relationship between light quality and light availability at different phenological stages within a mature mixed forest. Agricultural and Forest Meteorology, 2007, 142, 35-44.	4.8	26
112	Norway spruce (Picea abies): Bayesian analysis of the relationship between temperature and bud burst. Agricultural and Forest Meteorology, 2008, 148, 631-643.	4.8	26
113	A comparison of methods to estimate seasonal phenological development from BBCH scale recording. International Journal of Biometeorology, 2011, 55, 867-877.	3.0	25
114	Fine fuel moisture for site- and species-specific fire danger assessment in comparison to fire danger indices. Agricultural and Forest Meteorology, 2017, 234-235, 31-47.	4.8	25
115	Adaptive limitations of white spruce populations to drought imply vulnerability to climate change in its western range. Evolutionary Applications, 2019, 12, 1850-1860.	3.1	25
116	Shifting and extension of phenological periods with increasing temperature along elevational transects in southern <scp>B</scp>avaria. Plant Biology, 2014, 16, 332-344.	3.8	24
117	Testing the stability of transfer functions. Dendrochronologia, 2017, 42, 56-62.	2.2	24
118	Xylem adjustment of sessile oak at its southern distribution limits. Tree Physiology, 2017, 37, 903-914.	3.1	24
119	LiDAR derived topography and forest stand characteristics largely explain the spatial variability observed in MODIS land surface phenology. Remote Sensing of Environment, 2018, 218, 231-244.	11.0	24
120	On the diurnal, weekly, and seasonal cycles and annual trends in atmospheric CO₂ at Mount Zugspitze, Germany, during 1981â€“2016. Atmospheric Chemistry and Physics, 2019, 19, 999-1012.	4.9	24
121	Frequency of inversions affects senescence phenology of Acer pseudoplatanus and Fagus sylvatica. International Journal of Biometeorology, 2014, 58, 485-498.	3.0	23
122	Indoor birch pollen concentrations differ with ventilation scheme, room location, and meteorological factors. Indoor Air, 2017, 27, 539-550.	4.3	23
123	Testing Water Yield, Efficiency of Different Meshes and Water Quality with a Novel Fog Collector for High Wind Speeds. Aerosol and Air Quality Research, 2018, 18, 240-253.	2.1	23
124	Exploring two methods for statistical downscaling of Central European phenological time series. International Journal of Biometeorology, 2003, 48, 56-64.	3.0	22
125	Grass pollen production and group V allergen content of agriculturally relevant species and cultivars. PLoS ONE, 2018, 13, e0193958.	2.5	22
126	Predicting the start, peak and end of the Betula pollen season in Bavaria, Germany. Science of the Total Environment, 2019, 690, 1299-1309.	8.0	22

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127	INTRODUCTIONÂ European cooperation in plant phenology 3. Climate Research, 2009, 39, 175-177.	1.1	22
128	Influence of climate drivers and the North Atlantic Oscillation on beech growth at marginal sites across the Mediterranean. Climate Research, 2015, 66, 229-242.	1.1	22
129	Estimation of soil loss by water erosion in the Chinese Loess Plateau using Universal Soil Loss Equation and GRACE. Geophysical Journal International, 2013, 193, 1283-1290.	2.4	20
130	Changes in the timing of hay cutting in Germany do not keep pace with climate warming. Global Change Biology, 2013, 19, 3123-3132.	9.5	20
131	Assessment of Urban CO2 Measurement and Source Attribution in Munich Based on TDLAS-WMS and Trajectory Analysis. Atmosphere, 2020, 11, 58.	2.3	20
132	Estimation of surface dead fine fuel moisture using automated fuel moisture sticks across a range of forests worldwide. International Journal of Wildland Fire, 2020, 29, 548.	2.4	20
133	Forest fire danger rating in complex topography â€“ results from a case study in the Bavarian Alps in autumn 2011. Natural Hazards and Earth System Sciences, 2013, 13, 2157-2167.	3.6	19
134	Seasonal and Diurnal Variation of Formaldehyde and its Meteorological Drivers at the GAW Site Zugspitze. Aerosol and Air Quality Research, 2016, 16, 801-815.	2.1	19
135	Validation of drought indices using environmental indicators: streamflow and carbon flux data. Agricultural and Forest Meteorology, 2019, 265, 218-226.	4.8	19
136	Bayesian analysis of temperature sensitivity of plant phenology in Germany. Agricultural and Forest Meteorology, 2009, 149, 1699-1708.	4.8	18
137	Can positive matrix factorization help to understand patterns of organic trace gases at the continental Global Atmosphere Watch site Hohenpeissenberg?. Atmospheric Chemistry and Physics, 2015, 15, 1221-1236.	4.9	18
138	Does flower phenology mirror the slowdown of global warming?. Ecology and Evolution, 2015, 5, 2284-2295.	1.9	18
139	A four year survey reveals a coherent pattern between occurrence of fruit bodies and soil amoebae populations for nivicolous myxomycetes. Scientific Reports, 2018, 8, 11662.	3.3	18
140	Compensatory Growth of Scots Pine Seedlings Mitigates Impacts of Multiple Droughts Within and Across Years. Frontiers in Plant Science, 2019, 10, 519.	3.6	18
141	Ground and satellite phenology in alpine forests are becoming more heterogeneous across higher elevations with warming. Agricultural and Forest Meteorology, 2021, 303, 108383.	4.8	18
142	Temperature and Plant Development: Phenology and Seasonality. , 0, , 70-95.		17
143	Contrasting Hydraulic Architectures of Scots Pine and Sessile Oak at Their Southernmost Distribution Limits. Frontiers in Plant Science, 2017, 8, 598.	3.6	17
144	Responses of Contrasting Tree Functional Types to Air Warming and Drought. Forests, 2017, 8, 450.	2.1	17

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145	Soil water storage appears to compensate for climatic aridity at the xeric margin of European tree species distribution. European Journal of Forest Research, 2018, 137, 79-92.	2.5	17
146	Spatial interpolation of current airborne pollen concentrations where no monitoring exists. Atmospheric Environment, 2019, 199, 435-442.	4.1	17
147	Comparison of different methods for the in situ measurement of forest litter moisture content. Natural Hazards and Earth System Sciences, 2016, 16, 403-415.	3.6	16
148	Adaptive selection of diurnal minimum variation: a statistical strategy to obtain representative atmospheric CO₂ data and its application to European elevated mountain stations. Atmospheric Measurement Techniques, 2018, 11, 1501-1514.	3.1	16
149	High post-season Alnus pollen loads successfully identified as long-range transport of an alpine species. Atmospheric Environment, 2020, 231, 117453.	4.1	16
150	Indications of long-term changes in middle atmosphere transports. Advances in Space Research, 2003, 32, 1675-1684.	2.6	15
151	Equilibrium moisture content of dead fine fuels of selected central European tree species. International Journal of Wildland Fire, 2013, 22, 797.	2.4	15
152	Multiple-year assessment of phenological plasticity within a beech (Fagus sylvatica L.) stand in southern Germany. Agricultural and Forest Meteorology, 2015, 211-212, 13-22.	4.8	15
153	Quantification of monoterpene emission sources of a conifer species in response to experimental drought. AoB PLANTS, 2017, 9, plx045.	2.3	15
154	Rain Microstructure Parameters Vary with Large-Scale Weather Conditions in Lausanne, Switzerland. Remote Sensing, 2018, 10, 811.	4.0	15
155	Disentangling effects of climate and land use on biodiversity and ecosystem servicesâ€”A multiâ€scale experimental design. Methods in Ecology and Evolution, 2022, 13, 514-527.	5.2	15
156	Impact of summer drought on isoprenoid emissions and carbon sink of three Scots pine provenances. Tree Physiology, 2016, 36, 1382-1399.	3.1	14
157	Monitoring succession after a non-cleared windthrow in a Norway spruce mountain forest using webcam, satellite vegetation indices and turbulent CO 2 exchange. Agricultural and Forest Meteorology, 2017, 244-245, 72-81.	4.8	14
158	Functional xylem anatomy of aspen exhibits greater change due to insect defoliation than to drought. Tree Physiology, 2019, 39, 45-54.	3.1	14
159	A First Pre-season Pollen Transport Climatology to Bavaria, Germany. Frontiers in Allergy, 2021, 2, 627863.	2.8	14
160	Flux-based ozone risk assessment for adult beech forests. Trees - Structure and Function, 2012, 26, 1713-1721.	1.9	13
161	Assessing stand structure of beech and spruce from measured spectral radiation properties and modeled leaf biomass parameters. Agricultural and Forest Meteorology, 2012, 165, 82-91.	4.8	13
162	The impacts of climate change on the winter hardiness zones of woody plants in Europe. Theoretical and Applied Climatology, 2013, 113, 683-695.	2.8	13

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163	Small differences in seasonal and thermal niches influence elevational limits of native and invasive Balsams. Biological Conservation, 2015, 191, 682-691.	4.1	12
164	Climate threats on growth of rear-edge European beech peripheral populations in Spain. International Journal of Biometeorology, 2017, 61, 2097-2110.	3.0	12
165	Chilling and Forcing From Cut Twigsâ€"How to Simplify Phenological Experiments for Citizen Science. Frontiers in Plant Science, 2020, 11, 561413.	3.6	12
166	Solar Radiation as a Driver for Growth and Competition in Forest Stands. Ecological Studies, 2012, , 175-191.	1.2	12
167	Gesundheit. , 2017, , 137-149.		12
168	Wie sehen die WÃlder von morgen aus â€" aus der Sicht eines Klimatologen. European Journal of Forest Research, 1998, 117, 339-354.	0.3	11
169	Characterization of differential throughfall drop size distributions beneath European beech and Norway spruce. Hydrological Processes, 2019, 33, 3391-3406.	2.6	11
170	Pollution Events at the High-Altitude Mountain Site Zugspitze-Schneefernerhaus (2670 m a.s.l.), Germany. Atmosphere, 2019, 10, 330.	2.3	11
171	Machine Learning Approach to Classify Rain Type Based on Thies Disdrometers and Cloud Observations. Atmosphere, 2019, 10, 251.	2.3	11
172	Pollen forecasts in complex topography: two case studies from the Alps using the numerical pollen forecast model COSMO-ART. Aerobiologia, 2020, 36, 25-30.	1.7	11
173	Effects of weather, air pollution and Oktoberfest on ambulance-transported emergency department admissions in Munich, Germany. Science of the Total Environment, 2021, 755, 143772.	8.0	11
174	Plant Phenological â€œFingerprintsâ€. , 2013, , 335-350.		11
175	Precipitation Diurnal Cycle in Germany Linked to Large-Scale Weather Circulations. Atmosphere, 2019, 10, 545.	2.3	10
176	Summable C factors for contemporary soil use. Soil and Tillage Research, 2021, 213, 105155.	5.6	10
177	Plant Phenological â€œFingerprintsâ€. Tasks for Vegetation Science, 2003, , 319-329.	0.6	9
178	Impacts of temperature and water table manipulation on grassland phenology. Applied Vegetation Science, 2014, 17, 625-635.	1.9	9
179	Long-term linear trends mask phenological shifts. International Journal of Biometeorology, 2016, 60, 1611-1613.	3.0	9
180	Changes in spring arrival dates and temperature sensitivity of migratory birds over two centuries. International Journal of Biometeorology, 2017, 61, 1279-1289.	3.0	9

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181	Decrease or increase? Temporal changes in pollen concentrations assessed by Bayesian statistics. Aerobiologia, 2019, 35, 153-163.	1.7	9
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183	Atmospheric CO2 and Î´13C Measurements from 2012 to 2014 at the Environmental Research Station Schneefernerhaus, Germany: Technical Corrections, Temporal Variations and Trajectory Clustering. Aerosol and Air Quality Research, 2019, 19, 657-670.	2.1	9
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