

# Petr Stepanek

## List of Publications by Year in descending order

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Version: 2024-02-01

104  
papers

4,445  
citations

101496

36  
h-index

118793

62  
g-index

118  
all docs

118  
docs citations

118  
times ranked

5116  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Long-term changes in drought indices in eastern and central Europe. <i>International Journal of Climatology</i> , 2022, 42, 225-249.  | 1.5 | 41        |
| 2  | Projection of 21st century irrigation water requirements for sensitive agricultural crop commodities across the Czech Republic. <i>Agricultural Water Management</i> , 2022, 262, 107337.   | 2.4 | 8         |
| 3  | Circulation and Climate Variability in the Czech Republic between 1961 and 2020: A Comparison of Changes for Two "Normal" Periods. <i>Atmosphere</i> , 2022, 13, 137.   | 1.0 | 23        |
| 4  | Temperature extremes and circulation types in the Czech Republic, 1961–2020. <i>International Journal of Climatology</i> , 2022, 42, 4808-4829.   | 1.5 | 12        |
| 5  | Increasing available water capacity as a factor for increasing drought resilience or potential conflict over water resources under present and future climate conditions. <i>Agricultural Water Management</i> , 2022, 264, 107460. | 2.4 | 10        |
| 6  | Evaluation of the Homogenization Adjustments Applied to European Temperature Records in the Global Historical Climatology Network Dataset. <i>Atmosphere</i> , 2022, 13, 285.   | 1.0 | 11        |
| 7  | Changes in forest nitrogen cycling across deposition gradient revealed by $\delta^{15}N$ in tree rings. <i>Environmental Pollution</i> , 2022, 304, 119104.   | 3.7 | 5         |
| 8  | Phenological Response of Flood Plain Forest Ecosystem Species to Climate Change during 1961–2021. <i>Atmosphere</i> , 2022, 13, 978.  | 1.0 | 4         |
| 9  | Reflections of global warming in trends of temperature characteristics in the Czech Republic, 1961–2019. <i>International Journal of Climatology</i> , 2021, 41, 1211-1229.   | 1.5 | 46        |
| 10 | Climate warming induced synchronous growth decline in Norway spruce populations across biogeographical gradients since 2000. <i>Science of the Total Environment</i> , 2021, 752, 141794.   | 3.9 | 44        |
| 11 | Soil drought and circulation types in a longitudinal transect over central Europe. <i>International Journal of Climatology</i> , 2021, 41, E2834.   | 1.5 | 11        |
| 12 | Evidence of climate-induced stress of Norway spruce along elevation gradient preceding the current dieback in Central Europe. <i>Trees - Structure and Function</i> , 2021, 35, 103-119.  | 0.9 | 47        |
| 13 | Observed changes in precipitation during recent warming: The Czech Republic, 1961–2019. <i>International Journal of Climatology</i> , 2021, 41, 3881-3902.  | 1.5 | 33        |
| 14 | Observed changes in the agroclimatic zones in the Czech Republic between 1961 and 2019. <i>Plant, Soil and Environment</i> , 2021, 67, 154-163.   | 1.0 | 20        |
| 15 | Paraglacial Rock Slope Stability Under Changing Environmental Conditions, Safuna Lakes, Cordillera Blanca Peru. <i>Frontiers in Earth Science</i> , 2021, 9, .  | 0.8 | 9         |
| 16 | Devastating outbreak of bark beetles in the Czech Republic: Drivers, impacts, and management implications. <i>Forest Ecology and Management</i> , 2021, 490, 119075.  | 1.4 | 134       |
| 17 | Analysis of Sub-Daily Precipitation for the PannEx Region. <i>Atmosphere</i> , 2021, 12, 838.   | 1.0 | 4         |
| 18 | Effects of Climatic and Soil Data on Soil Drought Monitoring Based on Different Modelling Schemes. <i>Atmosphere</i> , 2021, 12, 913.   | 1.0 | 5         |

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|----|---|-----|-----------|
| 19 | Assess hydrological responses to a warming climate at the Lysina Critical Zone Observatory in Central Europe. <i>Hydrological Processes</i> , 2021, 35, e14281.   | 1.1 | 2         |
| 20 | Observed and estimated consequences of climate change for the fire weather regime in the moist-temperate climate of the Czech Republic. <i>Agricultural and Forest Meteorology</i> , 2021, 310, 108583.                         | 1.9 | 10        |
| 21 | The 1921 European drought: impacts, reconstruction and drivers. <i>Climate of the Past</i> , 2021, 17, 2201-2221.   | 1.3 | 4         |
| 22 | Precipitation in the Czech Republic in Light of Subjective and Objective Classifications of Circulation Types. <i>Atmosphere</i> , 2021, 12, 1536.  | 1.0 | 12        |
| 23 | Changes in a river's regime of a watercourse after a small water reservoir construction. <i>Soil and Water Research</i> , 2020, 15, 55-65.  | 0.7 | 2         |
| 24 | Comparison of homogenization methods for daily temperature series against an observation-based benchmark dataset. <i>Theoretical and Applied Climatology</i> , 2020, 140, 285-301.  | 1.3 | 23        |
| 25 | Past (1971–2018) and future (2021–2100) pan evaporation rates in the Czech Republic. <i>Journal of Hydrology</i> , 2020, 590, 125390.   | 2.3 | 29        |
| 26 | Distinct types of landslides in moraines associated with the post-LIA glacier thinning: Observations from the Kinzl Glacier, Huascarán, Peru. <i>Science of the Total Environment</i> , 2020, 739, 139997.                      | 3.9 | 15        |
| 27 | Czech Drought Monitor System for monitoring and forecasting agricultural drought and drought impacts. <i>International Journal of Climatology</i> , 2020, 40, 5941-5958.  | 1.5 | 55        |
| 28 | Temporal changes in years of life lost associated with heat waves in the Czech Republic. <i>Science of the Total Environment</i> , 2020, 716, 137093.   | 3.9 | 18        |
| 29 | The dynamics of annual and seasonal precipitation totals in the Czech Republic during 1961–2019. <i>Acta Hydrologica Slovaca</i> , 2020, 21, 197-204.   | 0.1 | 0         |
| 30 | Observed and expected changes in wildfire-conducive weather and fire events in peri-urban zones and key nature reserves of the Czech Republic. <i>Climate Research</i> , 2020, 82, 33-54.                                       | 0.4 | 8         |
| 31 | An intercomparison of a large ensemble of statistical downscaling methods over Europe: Results from the VALUE perfect predictor cross-validation experiment. <i>International Journal of Climatology</i> , 2019, 39, 3750-3785. | 1.5 | 164       |
| 32 | Differences in wind speeds according to measured and homogenized series in the Czech Republic, 1961–2015. <i>International Journal of Climatology</i> , 2019, 39, 235-250.  | 1.5 | 16        |
| 33 | Forcings and projections of past and future wind speed over the Czech Republic. <i>Climate Research</i> , 2019, 77, 1-21.   | 0.4 | 3         |
| 34 | The December 2014 glaze event in the Czech Republic: predictability and impacts. <i>Weather</i> , 2018, 73, 375-382.  | 0.6 | 4         |
| 35 | Projected changes in the evolution of drought on various timescales over the Czech Republic according to Euro-CORDEX models. <i>International Journal of Climatology</i> , 2018, 38, e939.                                      | 1.5 | 18        |
| 36 | Increased spruce tree growth in Central Europe since 1960s. <i>Science of the Total Environment</i> , 2018, 619-620, 1637-1647.   | 3.9 | 29        |

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|----|--|-----|-----------|
| 37 | Projected shift of Köppen-Geiger zones in the central Europe: A first insight into the implications for ecosystems and the society. <i>International Journal of Climatology</i> , 2018, 38, 3595-3606. | 1.5 | 16        |
| 38 | Post-disturbance recovery of forest carbon in a temperate forest landscape under climate change. <i>Agricultural and Forest Meteorology</i> , 2018, 263, 308-322.                                      | 1.9 | 44        |
| 39 | Participatory Climate Change Impact Assessment in Three Czech Cities: The Case of Heatwaves. <i>Sustainability</i> , 2018, 10, 1906.   | 1.6 | 14        |
| 40 | Drought Prediction System for Central Europe and Its Validation. <i>Geosciences (Switzerland)</i> , 2018, 8, 104.  | 1.0 | 10        |
| 41 | Climatic Changes and Their Relation to Weather Types in a Transboundary Mountainous Region in Central Europe. <i>Sustainability</i> , 2018, 10, 2049.  | 1.6 | 6         |
| 42 | The impacts of key adverse weather events on the field-grown vegetable yield variability in the Czech Republic from 1961 to 2014. <i>International Journal of Climatology</i> , 2017, 37, 1648-1664.   | 1.5 | 18        |
| 43 | Climatic drivers of forest productivity in Central Europe. <i>Agricultural and Forest Meteorology</i> , 2017, 234-235, 258-273.  | 1.9 | 33        |
| 44 | The variability of maximum wind gusts in the Czech Republic between 1961 and 2014. <i>International Journal of Climatology</i> , 2017, 37, 1961-1978.  | 1.5 | 18        |
| 45 | Environmental factors exert strong control over the climate-growth relationships of <i>Picea abies</i> in Central Europe. <i>Science of the Total Environment</i> , 2017, 609, 506-516.                | 3.9 | 57        |
| 46 | Increasing moisture limitation of Norway spruce in Central Europe revealed by forward modelling of tree growth in tree-ring network. <i>Agricultural and Forest Meteorology</i> , 2017, 247, 56-64.    | 1.9 | 49        |
| 47 | Droughts and Drought Management in the Czech Republic in a Changing Climate. <i>Drought and Water Crises</i> , 2017, , 461-480.  | 0.1 | 4         |
| 48 | Analysing changes in land cover in relation to environmental factors in the districts of Znojmo and Tábor (Czech Republic). <i>European Journal of Environmental Sciences</i> , 2017, 7, 108-118.      | 0.6 | 5         |
| 49 | Spatial and temporal variability of mean daily wind speeds in the Czech Republic, 1961-2015. <i>Climate Research</i> , 2017, 72, 197-216.  | 0.4 | 7         |
| 50 | Spatial Patterns of Heat-Related Cardiovascular Mortality in the Czech Republic. <i>International Journal of Environmental Research and Public Health</i> , 2016, 13, 284.                             | 1.2 | 19        |
| 51 | Discerning environmental factors affecting current tree growth in Central Europe. <i>Science of the Total Environment</i> , 2016, 573, 541-554.  | 3.9 | 47        |
| 52 | Predicting sulphur and nitrogen deposition using a simple statistical method. <i>Atmospheric Environment</i> , 2016, 140, 456-468.   | 1.9 | 36        |
| 53 | Total water content thresholds for shallow landslides, Outer Western Carpathians. <i>Landslides</i> , 2016, 13, 337-347.   | 2.7 | 14        |
| 54 | Drought stress impact on vegetable crop yields in the Elbe River lowland between 1961 and 2014. <i>Cuadernos De Investigacion Geografica</i> , 2016, 42, 127-143.                                      | 0.6 | 9         |

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|----|---|-----|-----------|
| 55 | Documentary and instrumental-based drought indices for the Czech Lands back to AD 1501. <i>Climate Research</i> , 2016, 70, 103-117.  | 0.4 | 38        |
| 56 | Drought trends over part of Central Europe between 1961 and 2014. <i>Climate Research</i> , 2016, 70, 143-160.  | 0.4 | 69        |
| 57 | Drought reconstruction based on grape harvest dates for the Czech Lands, 1499-2012. <i>Climate Research</i> , 2016, 70, 119-132.  | 0.4 | 26        |
| 58 | Projection of drought-inducing climate conditions in the Czech Republic according to Euro-CORDEX models. <i>Climate Research</i> , 2016, 70, 179-193.   | 0.4 | 60        |
| 59 | Changing regional weather-crop yield relationships across Europe between 1901 and 2012. <i>Climate Research</i> , 2016, 70, 195-214.  | 0.4 | 44        |
| 60 | Pollution control enhanced spruce growth in the "Black Triangle" near the Czech-Polish border. <i>Science of the Total Environment</i> , 2015, 538, 703-711.  | 3.9 | 82        |
| 61 | Soil moisture trends in the Czech Republic between 1961 and 2012. <i>International Journal of Climatology</i> , 2015, 35, 3733-3747.  | 1.5 | 61        |
| 62 | Drivers of soil drying in the Czech Republic between 1961 and 2012. <i>International Journal of Climatology</i> , 2015, 35, 2664-2675.  | 1.5 | 37        |
| 63 | The extreme drought episode of August 2011-May 2012 in the Czech Republic. <i>International Journal of Climatology</i> , 2015, 35, 3335-3352.   | 1.5 | 53        |
| 64 | The Effects of Climate Change on Variability of the Growing Seasons in the Elbe River Lowland, Czech Republic. <i>Advances in Meteorology</i> , 2015, 2015, 1-16.   | 0.6 | 14        |
| 65 | Climate of the Carpathian Region in the period 1961-2010: climatologies and trends of 10 variables. <i>International Journal of Climatology</i> , 2015, 35, 1322-1341.  | 1.5 | 152       |
| 66 | Tree-Ring Amplification of the Early Nineteenth-Century Summer Cooling in Central Europea. <i>Journal of Climate</i> , 2015, 28, 5272-5288.   | 1.2 | 33        |
| 67 | Performance of the standardised precipitation evapotranspiration index at various lags for agricultural drought risk assessment in the Czech Republic. <i>Agricultural and Forest Meteorology</i> , 2015, 202, 26-38. | 1.9 | 139       |
| 68 | Comparative validation of statistical and dynamical downscaling models on a dense grid in central Europe: temperature. <i>Theoretical and Applied Climatology</i> , 2015, 120, 533-553.                               | 1.3 | 28        |
| 69 | Homogenization of monthly precipitation time series in Croatia. <i>International Journal of Climatology</i> , 2014, 34, 3671-3682.  | 1.5 | 17        |
| 70 | Links between circulation types and precipitation in Central Europe in the observed data and regional climate model simulations. <i>International Journal of Climatology</i> , 2014, 34, 2885-2898.                   | 1.5 | 15        |
| 71 | Determination of areas with the most significant shift in persistence of pests in Europe under climate change. <i>Pest Management Science</i> , 2014, 70, 708-715.  | 1.7 | 44        |
| 72 | Comparison of two methods of erosive rains determination. <i>Contributions To Geophysics and Geodesy</i> , 2014, 44, 253-269.   | 0.2 | 2         |

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|----|--|-----|-----------|
| 73 | Observed spatiotemporal characteristics of drought on various time scales over the Czech Republic. <i>Theoretical and Applied Climatology</i> , 2014, 115, 563-581.  | 1.3 | 130       |
| 74 | Phenological differences among selected residents and long-distance migrant bird species in central Europe. <i>International Journal of Biometeorology</i> , 2014, 58, 809-817.  | 1.3 | 6         |
| 75 | Risk occurrences of damaging frosts during the growing season of vegetables in the Elbe River lowland, the Czech Republic. <i>Natural Hazards</i> , 2014, 71, 1-19.  | 1.6 | 16        |
| 76 | Long-term variability of temperature and precipitation in the Czech Lands: an attribution analysis. <i>Climatic Change</i> , 2014, 125, 253-264.   | 1.7 | 14        |
| 77 | Climate variability and potential distribution of selected pest species in south Moravia and north-east Austria in the past 200 years – lessons for the future. <i>Journal of Agricultural Science</i> , 2014, 152, 225-237.                     | 0.6 | 6         |
| 78 | Climatic factors and their influence on onset and duration of phenological phases of chosen plants at locations south Moravia during 1961-2007. <i>Acta Universitatis Agriculturae Et Silviculturae Mendelianae Brunensis</i> , 2014, 58, 35-44. | 0.2 | 4         |
| 79 | Potential impacts of climate change on damaging frost during growing season of vegetables. <i>Scientia Agriculturae Bohemica</i> , 2014, 45, 26-35.  | 0.3 | 7         |
| 80 | An assessment of the role of homogenization protocol in the performance of daily temperature series and trends: application to northeastern Spain. <i>International Journal of Climatology</i> , 2013, 33, 87-108.                               | 1.5 | 36        |
| 81 | Benchmarking homogenization algorithms for monthly data. <i>AIP Conference Proceedings</i> , 2013, , .   | 0.3 | 20        |
| 82 | Impact of volcanic stratospheric aerosols on diurnal temperature range in Europe over the past 2000 years: Observations versus model simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 9064-9077.                  | 1.2 | 7         |
| 83 | Droughts in the Czech Lands, 1090–2012 AD. <i>Climate of the Past</i> , 2013, 9, 1985-2002.  | 1.3 | 68        |
| 84 | Pest occurrence model in current climate - validation study for European domain. <i>Acta Universitatis Agriculturae Et Silviculturae Mendelianae Brunensis</i> , 2013, 61, 205-214.  | 0.2 | 4         |
| 85 | The analysis of long-term phenological data of apricot tree ( <i>Prunus armeniaca</i> L.) in southern Moravia during 1927-2009. <i>Acta Universitatis Agriculturae Et Silviculturae Mendelianae Brunensis</i> , 2013, 60, 9-18.                  | 0.2 | 4         |
| 86 | Benchmarking homogenization algorithms for monthly data. <i>Climate of the Past</i> , 2012, 8, 89-115.   | 1.3 | 286       |
| 87 | Long-term comparison of temperature measurements by the multi-plate shield and Czech-Slovak thermometer screen. <i>Meteorologische Zeitschrift</i> , 2012, 21, 125-133.  | 0.5 | 4         |
| 88 | Analysis of rainfall intensities using very dense network measurements and radar information for the Brno area during the period 2003-2009. <i>Meteorologische Zeitschrift</i> , 2012, 21, 29-35.  | 0.5 | 6         |
| 89 | Temperature and precipitation fluctuations in the Czech Republic during the period of instrumental measurements. <i>Theoretical and Applied Climatology</i> , 2012, 110, 17-34.  | 1.3 | 72        |
| 90 | Could the changes in regional crop yields be a pointer of climatic change?. <i>Agricultural and Forest Meteorology</i> , 2012, 166-167, 62-71.   | 1.9 | 55        |

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|-----|--|-----|-----------|
| 91  | Observational evidence for soil-moisture impact on hot extremes in southeastern Europe. <i>Nature Geoscience</i> , 2011, 4, 17-21.   | 5.4 | 607       |
| 92  | Expected changes in agroclimatic conditions in Central Europe. <i>Climatic Change</i> , 2011, 108, 261-289.  | 1.7 | 55        |
| 93  | A 200-year climate record in Central Europe: implications for agriculture. <i>Agronomy for Sustainable Development</i> , 2011, 31, 631-641.  | 2.2 | 20        |
| 94  | Estimating the impact of climate change on the occurrence of selected pests at a high spatial resolution: a novel approach. <i>Journal of Agricultural Science</i> , 2011, 149, 185-195.                                   | 0.6 | 51        |
| 95  | A complete daily precipitation database for northeast Spain: reconstruction, quality control, and homogeneity. <i>International Journal of Climatology</i> , 2010, 30, 1146-1163.  | 1.5 | 119       |
| 96  | Is rainfed crop production in central Europe at risk? Using a regional climate model to produce high resolution agroclimatic information for decision makers. <i>Journal of Agricultural Science</i> , 2010, 148, 639-656. | 0.6 | 39        |
| 97  | Changing climate and the phenological response of great tit and collared flycatcher populations in floodplain forest ecosystems in Central Europe. <i>International Journal of Biometeorology</i> , 2010, 54, 99-111.      | 1.3 | 54        |
| 98  | Climate-driven changes of production regions in Central Europe. <i>Plant, Soil and Environment</i> , 2009, 55, 257-266.  | 1.0 | 24        |
| 99  | Seasonal precipitation trends in the Mediterranean Iberian Peninsula in second half of 20th century. <i>International Journal of Climatology</i> , 2009, 29, 1312-1323.  | 1.5 | 107       |
| 100 | Monthly precipitation trends on the Mediterranean fringe of the Iberian Peninsula during the second half of the twentieth century (1951-2000). <i>International Journal of Climatology</i> , 2009, 29, 1415-1429.          | 1.5 | 144       |
| 101 | Statistical characteristics of detectable inhomogeneities in observed meteorological time series. <i>Studia Geophysica Et Geodaetica</i> , 2009, 53, 239-260.  | 0.3 | 10        |
| 102 | Data quality control and homogenization of air temperature and precipitation series in the area of the Czech Republic in the period 1961-2007. <i>Advances in Science and Research</i> , 2009, 3, 23-26.                   | 1.0 | 90        |
| 103 | 20th-century glacier recession and regional hydroclimatic changes in northwestern Patagonia. <i>Global and Planetary Change</i> , 2008, 60, 85-100.  | 1.6 | 157       |
| 104 | Simulation of summer temperature extremes over the Czech Republic in regional climate models. <i>Meteorologische Zeitschrift</i> , 2008, 17, 645-661.  | 0.5 | 8         |