Harry Harmens

List of Publications by Year
in descending order

81 papers	4,085 citations	117453 34 h-index	118652 62 g-index
88 all docs	88 docs citations	88 times ranked	3890 citing authors

#	Article	IF	Citations
1	Mosses as biomonitors of atmospheric heavy metal deposition: Spatial patterns and temporal trends in Europe. Environmental Pollution, 2010, 158, 3144-3156.	3.7	272
2	Evidence of widespread effects of ozone on crops and (semi-)natural vegetation in Europe (1990-2006) in relation to AOT40- and flux-based risk maps. Global Change Biology, 2011, 17, 592-613.	4.2	239
3	New stomatal flux-based critical levels for ozone effects on vegetation. Atmospheric Environment, 2011, 45, 5064-5068.	1.9	215
4	Tropospheric Ozone Assessment Report: Present-day tropospheric ozone distribution and trends relevant to vegetation. Elementa, 2018, 6, .	1.1	212
5	Ozone affects plant, insect, and soil microbial communities: A threat to terrestrial ecosystems and biodiversity. Science Advances, 2020, 6, eabc1176.	4.7	181
6	Ozone pollution will compromise efforts to increase global wheat production. Global Change Biology, 2018, 24, 3560-3574.	4.2	163
7	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.	3.3	141
8	Heavy metal and nitrogen concentrations in mosses are declining across Europe whilst some â€œhotspotsâ€•remain in 2010. Environmental Pollution, 2015, 200, 93-104.	3.7	136
9	Interactions between Elevated CO2and Warming Could Amplify DOC Exports from Peatland Catchments. Environmental Science & Technology, 2007, 41, 3146-3152.	4.6	130
10	Temporal trends (1990â€"2000) in the concentration of cadmium, lead and mercury in mosses across Europe. Environmental Pollution, 2008, 151, 368-376.	3.7	111
11	Increased Zinc Tolerance in Silene vulgaris (Moench) Garcke Is Not Due to Increased Production of Phytochelatins. Plant Physiology, 1993, 103, 1305-1309.	2.3	107
12	Nitrogen concentrations in mosses indicate the spatial distribution of atmospheric nitrogen deposition in Europe. Environmental Pollution, 2011, 159, 2852-2860.	3.7	106
13	Terrestrial mosses as biomonitors of atmospheric POPs pollution: A review. Environmental Pollution, 2013, 173, 245-254.	3.7	99
14	Current and future ozone risks to global terrestrial biodiversity and ecosystem processes. Ecology and Evolution, 2016, 6, 8785-8799.	0.8	86
15	Temporal trends in the concentration of arsenic, chromium, copper, iron, nickel, vanadium and zinc in mosses across Europe between 1990 and 2000. Atmospheric Environment, 2007, 41, 6673-6687.	1.9	85
16	Country-specific correlations across Europe between modelled atmospheric cadmium and lead deposition and concentrations in mosses. Environmental Pollution, 2012, 166, 1-9.	3.7	85
17	Heavy Metal Concentrations in European Mosses: 2000/2001 Survey. Journal of Atmospheric Chemistry, 2004, 49, 425-436.	1.4	82
18	Elevated CO2 Effects on Peatland Plant Community Carbon Dynamics and DOC Production. Ecosystems, 2007, 10, 635-647.	1.6	81

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19	Gene flow in Plantago I. Gene flow and neighbourhood size in P. lanceolata. Heredity, 1986, 56, 43-54.	1.2	79
20	Melatonin enhances drought resistance by regulating leaf stomatal behaviour, root growth and catalase activity in two contrasting rapeseed (Brassica napus L.) genotypes. Plant Physiology and Biochemistry, 2020, 149, 86-95.	2.8	77
21	Ozone impacts on vegetation in a nitrogen enriched and changing climate. Environmental Pollution, 2016, 208, 898-908.	3.7	75
22	Uptake and Transport of Zinc in Zinc-sensitive and Zinc-tolerant Silene vulgaris. Journal of Plant Physiology, 1993, 141, 309-315.	1.6	68
23	The fate of photosyntheticallyâ€fixed carbon in Lolium perenne grassland as modified by elevated CO 2 and sward management. New Phytologist, 2007, 173, 766-777.	3.5	68
24	Are cadmium, lead and mercury concentrations in mosses across Europe primarily determined by atmospheric deposition of these metals?. Journal of Soils and Sediments, 2010, 10, 1572-1584.	1.5	60
25	Origin and spatial distribution of metals in moss samples in Albania: A hotspot of heavy metal contamination in Europe. Chemosphere, 2018, 190, 337-349.	4.2	56
26	Metal accumulation in mosses across national boundaries: Uncovering and ranking causes of spatial variation. Environmental Pollution, 2008, 151, 377-388.	3.7	49
27	The role of low molecular weight organic acids in the mechanism of increased zinc tolerance in Silene vulgaris (Moench) Garcke. New Phytologist, 1994, 126, 615-621.	3.5	48
28	Relationship between site-specific nitrogen concentrations in mosses and measured wet bulk atmospheric nitrogen deposition across Europe. Environmental Pollution, 2014, 194, 50-59.	3.7	48
29	First Europe-wide correlation analysis identifying factors best explaining the total nitrogen concentration in mosses. Atmospheric Environment, 2010, 44, 3485-3491.	1.9	46
30	Atmospheric CO2 elevation has little effect on nitrifying and denitrifying enzyme activity in four European grasslands. Global Change Biology, 2004, 10, 488-497.	4.2	44
31	Spatial distribution and temporal trend of airborne trace metal deposition in Albania studied by moss biomonitoring. Ecological Indicators, 2019, 101, 1007-1017.	2.6	44
32	First thorough identification of factors associated with Cd, Hg and Pb concentrations in mosses sampled in the European Surveys 1990, 1995, 2000 and 2005. Journal of Atmospheric Chemistry, 2009, 63, 109-124.	1.4	39
33	First survey of atmospheric heavy metal deposition in Kosovo using moss biomonitoring. Environmental Science and Pollution Research, 2016, 23, 744-755.	2.7	39
34	Mapping correlations between nitrogen concentrations in atmospheric deposition and mosses for natural landscapes in Europe. Ecological Indicators, 2014, 36, 563-571.	2.6	36
35	Leaf traits and photosynthetic responses of Betula pendula saplings to a range of ground-level ozone concentrations at a range of nitrogen loads. Journal of Plant Physiology, 2017, 211, 42-52.	1.6	36
36	Spatially valid data of atmospheric deposition of heavy metals and nitrogen derived by moss surveys for pollution risk assessments of ecosystems. Environmental Science and Pollution Research, 2016, 23, 10457-10476.	2.7	35

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37	Implications of climate change for the stomatal flux of ozone: A case study for winter wheat. Environmental Pollution, 2007, 146, 763-770.	3.7	34
38	Is Partitioning of Dry Weight and Leaf Area Within Dactylis glomerata Affected by N and CO2Enrichment?. Annals of Botany, 2000, 86, 833-839.	1.4	31
39	Multi-elements atmospheric deposition study in Albania. Environmental Science and Pollution Research, 2014, 21, 2506-2518.	2.7	31
40	Wheat yield responses to stomatal uptake of ozone: Peak vs rising background ozone conditions. Atmospheric Environment, 2018, 173, 1-5.	1.9	31
41	Impacts of summer ozone exposure on the growth and overwintering of UK upland vegetation. Atmospheric Environment, 2006, 40, 4088-4097.	1.9	27
42	Tropospheric ozone pollution reduces the yield of African crops. Journal of Agronomy and Crop Science, 2020, 206, 214-228.	1.7	26
43	Ozone and plants. Environmental Pollution, 2015, 202, 215-216.	3.7	25
44	Correlation between atmospheric deposition of Cd, Hg and Pb and their concentrations in mosses specified for ecological land classes covering Europe. Atmospheric Pollution Research, 2013, 4, 267-274.	1.8	24
45	Impacts of elevated atmospheric CO2 and temperature on plant community structure of a temperate grassland are modulated by cutting frequency. Grass and Forage Science, 2004, 59, 144-156.	1.2	22
46	Modelling and mapping heavy metal and nitrogen concentrations in moss in 2010 throughout Europe by applying Random Forests models. Atmospheric Environment, 2017, 156, 146-159.	1.9	22
47	The effect of sampling scheme in the survey of atmospheric deposition of heavy metals in Albania by using moss biomonitoring. Environmental Science and Pollution Research, 2015, 22, 2258-2271.	2.7	20
48	Nitrogen availability does not affect ozone flux-effect relationships for biomass in birch (Betula) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30	3.9	19
49	Challenges, gaps and opportunities in investigating the interactions of ozone pollution and plant ecosystems. Science of the Total Environment, 2020, 709, 136188.	3.9	19
50	Can Reduced Irrigation Mitigate Ozone Impacts on an Ozone-Sensitive African Wheat Variety?. Plants, 2019, 8, 220.	1.6	18
51	New Insights into Leaf Physiological Responses to Ozone for Use in Crop Modelling. Plants, 2019, 8, 84.	1.6	18
52	Ozone-induced effects on leaves in African crop species. Environmental Pollution, 2021, 268, 115789.	3.7	18
53	Carbon Sequestration: Do N Inputs and Elevated Atmospheric CO2 Alter Soil Solution Chemistry and Respiratory C Losses?. Water, Air and Soil Pollution, 2004, 4, 177-186.	0.8	17
54	Does down-regulation of photosynthetic capacity by elevated CO2 depend on N supply in Dactylisglomerata?. Physiologia Plantarum, 2000, 108, 43-50.	2.6	17

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55	Increase of apoplastic ascorbate induced by ozone is insufficient to remove the negative effects in tobacco, soybean and poplar. Environmental Pollution, 2019, 245, 380-388.	3.7	16
56	Within season and carry-over effects following exposure of grassland species mixtures to increasing background ozone. Environmental Pollution, 2011, 159, 2420-2426.	3.7	15
57	Modelling spatial patterns of correlations between concentrations of heavy metals in mosses and atmospheric deposition in 2010 across Europe. Environmental Sciences Europe, 2018, 30, 53.	2.6	15
58	Impacts of Ground-Level Ozone on Crop Production in a Changing Climate. Environmental Science and Engineering, 2009, , 213-243.	0.1	13
59	Mapping background values of atmospheric nitrogen total depositions in Germany based on EMEP deposition modelling and the European Moss Survey 2005. Environmental Sciences Europe, 2011, 23, .	11.0	12
60	Does down-regulation of photosynthetic capacity by elevated CO2 depend on N supply in Dactylis glomerata ?. Physiologia Plantarum, 2000, 108, 43-50.	2.6	11
61	Reduced photosynthetic thermal acclimation capacity under elevated ozone in poplar (<i>Populus) Tj ETQq1 1 0.784314 rgBT /Overlock	4.2	9
62	Protogyny in Plantago lanceolata populations: an adaptation to pollination by wind?. , 1985, , 327-338.		9
63	Mapping atmospheric depositions of cadmium and lead in Germany based on EMEP deposition data and the European Moss Survey 2005. Environmental Sciences Europe, 2011, 23, 19.	11.0	8
64	Bioindication and modelling of atmospheric deposition in forests enable exposure and effect monitoring at high spatial density across scales. Annals of Forest Science, 2017, 74, 1.	0.8	7
65	Partitioning and Efficiency of Use of N in Dactylis glomerata as Affected by Elevated CO2: Interaction with N Supply. International Journal of Plant Sciences, 2001, 162, 1267-1274.	0.6	6
66	Ozone dose-response relationships for tropical crops reveal potential threat to legume and wheat production, but not to millets. Scientific African, 2020, 9, e00482.	0.7	6
67	Does spatial auto-correlation call for a revision of latest heavy metal and nitrogen deposition maps?. Environmental Sciences Europe, 2012, 24, 20.	11.0	5
68	Nitrogen Deposition Effects on Ecosystem Services and Interactions with other Pollutants and Climate Change. , 2014, , 493-505.		5
69	Do tradeâ€offs govern plant speciesâ€™ responses to different global change treatments?. Ecology, 2022, 103, e3626.	1.5	5
70	Species-specific effects of elevated CO2 on resource allocation in Plantago maritima and Armeria maritima. Biochemical Systematics and Ecology, 2007, 35, 121-129.	0.6	4
71	Comments on J.A. Fernandez, M.T. Boquete, A. Carballeira, J.R. Aboal (2015). A critical review of protocols for moss biomonitoring of atmospheric deposition: Sampling and sample preparation. Science of the Total Environment 517: 132â€“150. Science of the Total Environment, 2015, 538, 1024-1026.	3.9	4
72	Ozone critical levels for (semi-)natural vegetation dominated by perennial grassland species. Environmental Science and Pollution Research, 2021, 28, 15090-15098.	2.7	4

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73	Carbon sequestration: Do N inputs and elevated atmospheric CO2 alter soil solution chemistry and respiratory C losses?. Water, Air and Soil Pollution, 2005, 4, 177-186.	0.8	3
74	Quantifying the impact of ozone on crops in Sub-Saharan Africa demonstrates regional and local hotspots of production loss. Environmental Science and Pollution Research, 2021, 28, 62338-62352.	2.7	3
75	Application of novel image base estimation of invisible leaf injuries in relation to morphological and photosynthetic changes of Phaseolus vulgaris L. exposed to tropospheric ozone. Atmospheric Pollution Research, 2016, 7, 1065-1071.	1.8	2
76	Effects of tropospheric ozone and elevated nitrogen input on the temperate grassland forbs Leontodon hispidus and Succisa pratensis. Global Ecology and Conservation, 2020, 24, e01345.	1.0	2
77	Akkumulation von Metallen und Stickstoff in Moosen in Nordrhein-Westfalen 1990 â€“ 2005 (Accumulation of metals and nitrogen in mosses in North Rhine-Westfalia 1990â€“2005). Environmental Sciences Europe, 2012, 24, .	11.0	1
78	Are cadmium, lead and mercury concentrations in mosses across Europe primarily determined by atmospheric deposition of these metals?. , 2010, 10, 1572.		1
79	Photosynthetic Capacity and Productivity of CO2-Enriched Rice (Oryza sativaL.) Under Field Conditions. Journal of Crop Improvement, 2005, 13, 55-72.	0.9	0
80	Modelling the Atmospheric Concentration and Deposition of Pb and Cd in the UK. Springer Proceedings in Complexity, 2018, , 381-385.	0.2	0
81	Teaching Green Analytical Chemistry on the Example of Bioindication and Biomonitoring (B & B) Technologies. Green Chemistry and Sustainable Technology, 2019, , 19-43.	0.4	0