Holger GÃ¤rtner

List of Publications by Year
in descending order

77 papers	2,527 citations	257450 24 h-index	206112 48 g-index
81 all docs	81 docs citations	81 times ranked	2636 citing authors

#	Article	IF	Citations
1	Studying global change through investigation of the plastic responses of xylem anatomy in tree rings. New Phytologist, 2010, 185, 42-53.	7.3	475
2	The core-microtome: A new tool for surface preparation on cores and time series analysis of varying cell parameters. Dendrochronologia, 2010, 28, 85-92.	2.2	244
3	New perspectives for wood anatomical analysis in dendrosciences: The GSL1-microtome. Dendrochronologia, 2014, 32, 47-51.	2.2	142
4	400 Years of Debris-Flow Activity and Triggering Weather Conditions: Ritigraben, Valais, Switzerland. Arctic, Antarctic, and Alpine Research, 2005, 37, 387-395.	1.1	114
5	Tree roots â€" Methodological review and new development in dating and quantifying erosive processes. Geomorphology, 2007, 86, 243-251.	2.6	114
6	Scientific Merits and Analytical Challenges of Treeâ€Ring Densitometry. Reviews of Geophysics, 2019, 57, 1224-1264.	23.0	98
7	Temperature modulates intra-plant growth of Salix polaris from a high Arctic site (Svalbard). Polar Biology, 2013, 36, 1305-1318.	1.2	74
8	Application of eccentric growth of trees as a tool for landslide analyses: The example of Picea abies Karst. in the Carpathian and Sudeten Mountains (Central Europe). Catena, 2013, 111, 41-55.	5.0	70
9	Principles of semantic modeling of landform structures. Computers and Geosciences, 2001, 27, 1005-1010.	4.2	64
10	TREE-RING FEATURES: INDICATORS OF EXTREME EVENT IMPACTS. IAWA Journal, 2016, 37, 206-231.	2.7	64
11	New Tree-Ring Evidence from the Pyrenees Reveals Western Mediterranean Climate Variability since Medieval Times. Journal of Climate, 2017, 30, 5295-5318.	3.2	62
12	Olive Tree-Ring Problematic Dating: A Comparative Analysis on Santorini (Greece). PLoS ONE, 2013, 8, e54730.	2.5	60
13	Application of ash (Fraxinus excelsior L.) roots to determine erosion rates in mountain torrents. Catena, 2008, 72, 248-258.	5.0	57
14	A new sledge microtome to combine wood anatomy and tree-ring ecology. IAWA Journal, 2015, 36, 452-459.	2.7	47
15	The advantage of using a starch based non-Newtonian fluid to prepare micro sections. Dendrochronologia, 2013, 31, 175-178.	2.2	41
16	Tracing the origin of Arctic driftwood. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 68-76.	3.0	37
17	Drought-triggered false ring formation in a Mediterranean shrub. Botany, 2010, 88, 545-555.	1.0	34
18	Effect of permafrost on the formation of soil organic carbon pools and their physicalâ€"chemical properties in the Eastern Swiss Alps. Catena, 2013, 110, 70-85.	5.0	34

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19	A Technical Perspective in Modern Tree-ring Research - How to Overcome Dendroecological and Wood Anatomical Challenges. Journal of Visualized Experiments, 2015, , .	0.3	33
20	Wood anatomical changes in roots of European ash (Fraxinus excelsior L.) after exposure. Dendrochronologia, 2008, 25, 145-152.	2.2	32
21	The Formation of Traumatic Rows of Resin Ducts in Larix Decidua and Picea Abies (Pinaceae) as a Result of Wounding Experiments in the Dormant Season. IAWA Journal, 2009, 30, 199-215.	2.7	32
22	Tension Wood Formed in Fagus Sylvatica and Alnus Glutinosa After Simulated Mass Movement Events. IAWA Journal, 2007, 28, 39-48.	2.7	30
23	Variations in Tension Wood of Two Broadâ€Leaved Tree Species in Response to Different Mechanical Treatments: Implications forÂDendrochronology and Mass Movement Studies. International Journal of Plant Sciences, 2008, 169, 928-936.	1.3	27
24	Functional Relationships of Wood Anatomical Traits in Norway Spruce. Frontiers in Plant Science, 2020, 11, 683.	3.6	26
25	The olive-branch dating of the Santorini eruption. Antiquity, 2014, 88, 267-273.	1.0	25
26	Quantitative analysis of ring growth in spruce roots and its application towards a more precise dating. Dendrochronologia, 2016, 38, 61-71.	2.2	24
27	Interpretation of treeâ€“ring chronologies. Erdkunde, 2001, 55, 277-288.	0.8	22
28	The use of mycorrhiza for ecoâ€engineering measures in steep alpine environments: effects on soil aggregate formation and fineâ€root development. Earth Surface Processes and Landforms, 2014, 39, 1753-1763.	2.5	21
29	Pre-alpine mire sediments as a mirror of erosion, soil formation and landscape evolution during the last 45ka. Catena, 2015, 128, 63-79.	5.0	21
30	Incorporating 2D tree-ring data in 3D laser scans of coarse-root systems. Plant and Soil, 2010, 334, 175-187.	3.7	20
31	Xylem Adjustment in Erica Arborea to Temperature and Moisture Availability in Contrasting Climates. IAWA Journal, 2013, 34, 109-126.	2.7	20
32	A simplified and rapid technique to determine an aggregate stability coefficient in coarse grained soils. Catena, 2015, 127, 170-176.	5.0	20
33	Variation in wood anatomical structure of Douglas-fir defoliated by the western spruce budworm: a case study in the coastal-transitional zone of British Columbia, Canada. Trees - Structure and Function, 2014, 28, 1837-1846.	1.9	19
34	Optically ActiveÎ±-Arylcarboxylic Acids by Kinetic Resolution: Pyrethroid Acids. Angewandte Chemie International Edition in English, 1984, 23, 162-164.	4.4	18
35	A tool to model 3D coarse-root development with annual resolution. Plant and Soil, 2011, 346, 79-96.	3.7	18
36	Preparing micro sections of entire (dry) conifer increment cores for wood anatomical time-series analyses. Dendrochronologia, 2015, 34, 19-23.	2.2	18

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37	Wood anatomical analysis of Swiss willow (Salix helvetica) shrubs growing on creeping mountain permafrost. Dendrochronologia, 2013, 31, 97-104.	2.2	17
38	Age and diversity of Mediterranean dwarf shrublands: a dendrochronological approach along an altitudinal gradient on Crete. Journal of Vegetation Science, 2014, 25, 122-134.	2.2	15
39	Fire-related features of wood anatomy in a sweet chestnut (Castanea sativa) coppice in southern Switzerland. Trees - Structure and Function, 2010, 24, 643-655.	1.9	14
40	Plasticity and climatic sensitivity of wood anatomy contribute to performance of eastern Baltic provenances of Scots pine. Forest Ecology and Management, 2019, 452, 117568.	3.2	14
41	Non-linear regional weather-growth relationships indicate limited adaptability of the eastern Baltic Scots pine. Forest Ecology and Management, 2021, 479, 118600.	3.2	14
42	Object-oriented modeling of data sources as a tool for the integration of heterogeneous geoscientific information. Computers and Geosciences, 2001, 27, 975-985.	4.2	13
43	Anatomy and dendrochronological potential of Moringa peregrina from the hyper-arid desert in Egypt. Dendrochronologia, 2019, 56, 125606.	2.2	13
44	Does mycorrhizal inoculation improve plant survival, aggregate stability, and fine root development on a coarseâ€grained soil in an alpine ecoâ€engineering field experiment?. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2158-2171.	3.0	12
45	Effects of experimental stem burial on radial growth and wood anatomy of pedunculate oak. Dendrochronologia, 2015, 33, 54-60.	2.2	10
46	Increase in ring width, vessel number and Î´18O in olive trees infected with <i>Xylella fastidiosa</i>. Tree Physiology, 2020, 40, 1583-1594.	3.1	10
47	Compression wood has a minor effect on the climate signal in tree-ring stable isotope records of montane Norway spruce. Tree Physiology, 2020, 40, 1014-1028.	3.1	10
48	Nonlinear Weatherâ€“Growth Relationships Suggest Disproportional Growth Changes of Norway Spruce in the Eastern Baltic Region. Forests, 2021, 12, 661.	2.1	10
49	Cross-sectional interpolation of annual rings within a 3D root model. Dendrochronologia, 2011, 29, 201-210.	2.2	8
50	Introducing anatomical techniques to subfossil wood. Dendrochronologia, 2018, 52, 146-151.	2.2	8
51	GLACIAL LANDFORMS, TREE RINGS | Dendrogeomorphology. , 2013, , 91-103.		7
52	Forty centimeter long transverse and radial sections cut from fresh increment cores. IAWA Journal, 2015, 36, 460-463.	2.7	6
53	Occurrence of â€˜blueâ€™ and â€˜frostâ€™ rings reveal frost sensitivity of eastern Baltic provenances of Scots pine. Forest Ecology and Management, 2020, 457, 117729.	3.2	6
54	Trampling as a major ecological factor affecting the radial growth and wood anatomy of Scots pine (Pinus sylvestris L.) roots on a hiking trail. Ecological Indicators, 2021, 121, 107095.	6.3	6

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55	Reconstruction and actual trends of landslide activities in Bruustâ€“Haltiwald, Horw, canton of Lucerne, Switzerland. Geographica Helvetica, 2019, 74, 93-103.	0.8	6
56	An annually-resolved stem growth tool based on 3D laser scans and 2D tree-ring data. Trees - Structure and Function, 2018, 32, 125-136.	1.9	5
57	Effects of Mycorrhizal Fungi on Slope Stabilisation Functions of Plants. Springer Series in Geomechanics and Geoengineering, 2019, , 57-77.	0.1	5
58	Geomorphologie und Jahrringe â€“ Feldmethoden in der Dendrogeomorphologie | Geomorphology and tree rings â€“ field methods in dendrogeomorphology. Schweizerische Zeitschrift Fur Forstwesen, 2004, 155, 198-207.	0.1	5
59	Erkenntnisse aus der Trockenheit 2018 fÃ¼r die zukÃ¼nftige Waldentwicklung. Schweizerische Zeitschrift Fur Forstwesen, 2020, 171, 242-248.	0.1	5
60	Cambial Activity of Moringa peregrina (Forssk.) Fiori in Arid Environments. Frontiers in Plant Science, 2021, 12, 760002.	3.6	5
61	Altered growth with blue rings: comparison of radial growth and wood anatomy between trampled and non-trampled Scots pine roots. Dendrochronologia, 2022, 72, 125922.	2.2	5
62	Berenty Reserveâ€"A Gallery Forest in Decline in Dry Southern Madagascarâ€"Towards Forest Restoration. Land, 2018, 7, 8.	2.9	4
63	Wood anatomy and tree-ring stable isotopes indicate a recent decline in water-use efficiency in the desert tree Moringa peregrina. International Journal of Biometeorology, 2022, 66, 127-137.	3.0	4
64	GLACIAL LANDFORMS, TREE RINGS | Dendrogeomorphology. , 2007, , 979-988.		3
65	Testing the potential of the dwarf shrub Dryas octopetala L. for dating in dendrogeomorphology. Dendrochronologia, 2021, 67, 125823.	2.2	3
66	Stabile Isotope in der Dendroklimatologie | Stable isotopes and dendroclimatology. Schweizerische Zeitschrift Fur Forstwesen, 2004, 155, 222-232.	0.1	3
67	Long slide holders for microscope stages. IAWA Journal, 2018, 39, 489-496.	2.7	2
68	Comparative dendroecological characterisation of Ailanthus altissima (Mill.) Swingle in its native and introduced range. Dendrochronologia, 2019, 57, 125608.	2.2	2
69	Schweingruberâ€™s cosmos of inspiration. Dendrochronologia, 2020, 60, 125680.	2.2	2
70	Ring-forming plants in the Egyptian deserts. Flora: Morphology, Distribution, Functional Ecology of Plants, 2021, 279, 151812.	1.2	2
71	Changes in Rootâ€“Shoot Allometric Relations in Alpine Norway Spruce Trees After Strip Cutting. Frontiers in Plant Science, 2021, 12, 703674.	3.6	2
72	Formation and decay of peat bogs in the vegetable belt of Switzerland. Swiss Journal of Geosciences, 2021, 114, .	1.2	2

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73	Erosionsrekonstruktion aufgrund anatomischer VerÃnderungen in Eschenwurzeln | Reconstruction of erosion dynamics with exposed roots of European ash. Schweizerische Zeitschrift Fur Forstwesen, 2008, 159, 51-57.	0.1	2
74	Rekonstruktion von Massenbewegungen mithilfe der Holzanatomie | Reconstruction of geomorphic events by means of wood anatomy. Schweizerische Zeitschrift Fur Forstwesen, 2008, 159, 58-65.	0.1	2
75	Canopy status modulates formation of wood rays in scots pine under hemiboreal conditions. Dendrochronologia, 2021, 67, 125822.	2.2	1
76	In MemoriamFritz Hans Schweingruber 1936â€“2020. Tree-Ring Research, 2020, 76, 106.	0.6	1
77	Permafrost Biases Climate Signals in Î´18Otree-ring Series from a Sub-Alpine Tree Stand in Val Bever/Switzerland. Atmosphere, 2021, 12, 836.	2.3	0