Giovanna Battipaglia

List of Publications by Year
in descending order

88 papers	3,639 citations	117453 34 h-index	143772 57 g-index
109 all docs	109 docs citations	109 times ranked	4140 citing authors

#	Article	IF	Citations
1	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. New Phytologist, 2021, 229, 2413-2445.	3.5	286
2	Elevated <scp>CO</scp>₂ increases treeâ€level intrinsic water use efficiency: insights from carbon and oxygen isotope analyses in tree rings across three forest <scp>FACE</scp> sites. New Phytologist, 2013, 197, 544-554.	3.5	210
3	Feedback interactions between needle litter decomposition and rhizosphere activity. Oecologia, 2004, 139, 551-559.	0.9	193
4	Seasonal transfer of oxygen isotopes from precipitation and soil to the tree ring: source water versus needle water enrichment. New Phytologist, 2014, 202, 772-783.	3.5	171
5	Variations of vessel diameter and Î´¹³C in false rings of <i>Arbutus unedo</i> L. reflect different environmental conditions. New Phytologist, 2010, 188, 1099-1112.	3.5	121
6	INTRA-ANNUAL DENSITY FLUCTUATIONS IN TREE RINGS: HOW, WHEN, WHERE, AND WHY?. IAWA Journal, 2016, 37, 232-259.	2.7	119
7	A dynamic leaf gasâ€exchange strategy is conserved in woody plants under changing ambient CO₂: evidence from carbon isotope discrimination in paleo and CO₂ enrichment studies. Global Change Biology, 2016, 22, 889-902.	4.2	106
8	Tree rings indicate different drought resistance of a native (Abies alba Mill.) and a nonnative (Picea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2009, 257, 820-828.	1.4	103
9	Drought impact on water use efficiency and intraâ€annual density fluctuations in <i><scp>E</scp>rica arborea</i> on <scp>E</scp>lba (<scp>I</scp>taly). Plant, Cell and Environment, 2014, 37, 382-391.	2.8	102
10	Lowâ€frequency noise in <i>Î´</i>¹³C and <i>Î´</i>¹⁸O tree ring data: A case study of <i>Pinus uncinata</i> in the Spanish Pyrenees. Global Biogeochemical Cycles, 2010, 24, .	1.9	91
11	From xylogenesis to tree rings: wood traits to investigate tree response to environmental changes. IAWA Journal, 2019, 40, 155-182.	2.7	85
12	Structure and Function of Intraâ€"Annual Density Fluctuations: Mind the Gaps. Frontiers in Plant Science, 2016, 7, 595.	1.7	72
13	A multi-proxy assessment of dieback causes in a Mediterranean oak species. Tree Physiology, 2017, 37, 617-631.	1.4	69
14	Plant respiration: Controlled by photosynthesis or biomass?. Global Change Biology, 2020, 26, 1739-1753.	4.2	66
15	Climatic sensitivity of Î´18O in the wood and cellulose of tree rings: Results from a mixed stand of Acer pseudoplatanus L. and Fagus sylvatica L.. Palaeogeography, Palaeoclimatology, Palaeoecology, 2008, 261, 193-202.	1.0	62
16	Stand structure modulates the longâ€term vulnerability of <i>Pinus halepensis</i> to climatic drought in a semiarid Mediterranean ecosystem. Plant, Cell and Environment, 2012, 35, 1026-1039.	2.8	62
17	Site-aspect influence on climate sensitivity over time of a high-altitude Pinus cembra tree-ring network. Climatic Change, 2009, 96, 185-201.	1.7	61
18	Accelerating upward treeline shift in the Altai Mountains under last-century climate change. Scientific Reports, 2019, 9, 7678.	1.6	60

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19	Climatic Signals from Intra-annual Density Fluctuation Frequency in Mediterranean Pines at a Regional Scale. Frontiers in Plant Science, 2016, 7, 579.	1.7	58
20	Tree-ring growth and stable isotopes (13C and 15N) detect effects of wildfires on tree physiological processes in Pinus sylvestris L.. Trees - Structure and Function, 2011, 25, 627-636.	0.9	55
21	Tree-ring anatomy and carbon isotope ratio show both direct and legacy effects of climate on bimodal xylem formation in Pinus pinea. Tree Physiology, 2018, 38, 1098-1109.	1.4	55
22	Discrete versus continuous analysis of anatomical and Î´13C variability in tree rings with intra-annual density fluctuations. Trees - Structure and Function, 2012, 26, 513-524.	0.9	53
23	Long Tree-Ring Chronologies Provide Evidence of Recent Tree Growth Decrease in a Central African Tropical Forest. PLoS ONE, 2015, 10, e0120962.	1.1	53
24	Which matters most for the formation of intra-annual density fluctuations in Pinus pinaster: age or size?. Trees - Structure and Function, 2015, 29, 237-245.	0.9	52
25	Tree Vitality and Forest Health: Can Tree-Ring Stable Isotopes Be Used as Indicators?. Current Forestry Reports, 2021, 7, 69-80.	3.4	51
26	Effects of prescribed burning on ecophysiological, anatomical and stem hydraulic properties in<i>Pinus pinea</i>L.. Tree Physiology, 2016, 36, 1019-1031.	1.4	48
27	A smart multiple spatial and temporal resolution system to support precision agriculture from satellite images: Proof of concept on Aglianico vineyard. Remote Sensing of Environment, 2020, 240, 111679.	4.6	47
28	Tree-ring carbon and oxygen isotopes indicate different water use strategies in three Mediterranean shrubs at Capo Caccia (Sardinia, Italy). Trees - Structure and Function, 2015, 29, 1593-1603.	0.9	46
29	Traffic pollution affects tree-ring width and isotopic composition of Pinus pinea. Science of the Total Environment, 2010, 408, 586-593.	3.9	44
30	The effects of prescribed burning on Pinus halepensis Mill. as revealed by dendrochronological and isotopic analyses. Forest Ecology and Management, 2014, 334, 201-208.	1.4	44
31	Five centuries of Central European temperature extremes reconstructed from tree-ring density and documentary evidence. Global and Planetary Change, 2010, 72, 182-191.	1.6	43
32	Xylogenesis reveals the genesis and ecological signal of IADFs in Pinus pinea L. and Arbutus unedo L.. Annals of Botany, 2018, 121, 1231-1242.	1.4	39
33	Historical changes in the stomatal limitation of photosynthesis: empirical support for an optimality principle. New Phytologist, 2020, 225, 2484-2497.	3.5	39
34	Risky future for Mediterranean forests unless they undergo extreme carbon fertilization. Global Change Biology, 2017, 23, 2915-2927.	4.2	38
35	Comparing methods to analyse anatomical features of tree rings with and without intra-annual density fluctuations (IADFs). Dendrochronologia, 2014, 32, 1-6.	1.0	37
36	Volcanic explosive eruptions of the Vesuvio decrease tree-ring growth but not photosynthetic rates in the surrounding forests. Global Change Biology, 2007, 13, 1122-1137.	4.2	33

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37	Timing of False Ring Formation in Pinus halepensis and Arbutus unedo in Southern Italy: Outlook from an Analysis of Xylogenesis and Tree-Ring Chronologies. Frontiers in Plant Science, 2016, 7, 705.	1.7	32
38	Contrasting physiological responses to Mediterranean climate variability are revealed by intra-annual density fluctuations in tree rings of Quercus ilex L. and Pinus pinea L.. Tree Physiology, 2018, 38, 1213-1224.	1.4	31
39	Isotopic and anatomical signals for interpreting fire-related responses in Pinus halepensis. Trees - Structure and Function, 2014, 28, 1095-1104.	0.9	29
40	Pine afforestation decreases the longâ€term performance of understorey shrubs in a semiâ€arid Mediterranean ecosystem: a stable isotope approach. Functional Ecology, 2015, 29, 15-25.	1.7	28
41	Retrospective analysis of wood anatomical traits and treeâ€ring isotopes suggests siteâ€specific mechanisms triggering <i>Araucaria araucana</i> droughtâ€induced dieback. Global Change Biology, 2021, 27, 6394-6408.	4.2	28
42	Climatic isotope signals in tree rings masked by air pollution: A case study conducted along the Mont Blanc Tunnel access road (Western Alps, Italy). Atmospheric Environment, 2012, 61, 169-179.	1.9	27
43	Growth dynamics, climate sensitivity and water use efficiency in pure vs. mixed pine and beech stands in Trentino (Italy). Forest Ecology and Management, 2018, 409, 707-718.	1.4	27
44	Disentangling the effects of crown scorch and competition release on the physiological and growth response of Pinus halepensis Mill. using Î´13C and Î´18O isotopes. Forest Ecology and Management, 2018, 424, 276-287.	1.4	26
45	Wood Growth in Pure and Mixed Quercus ilex L. Forests: Drought Influence Depends on Site Conditions. Frontiers in Plant Science, 2019, 10, 397.	1.7	26
46	Growth, wood anatomy and stable isotopes show species-specific couplings in three Mexican conifers inhabiting drought-prone areas. Science of the Total Environment, 2020, 698, 134055.	3.9	25
47	Fire influence on Pinus halepensis: wood responses close and far from the scars. IAWA Journal, 2013, 34, 446-458.	2.7	24
48	Carbon stock increases up to old growth forest along a secondary succession in Mediterranean island ecosystems. PLoS ONE, 2019, 14, e0220194.	1.1	24
49	Warmingâ€related growth responses at the southern limit distribution of mountain pine (<i>Pinus) Tj ETQq1 1 0.784314 rgBT /Overlo	1.1	23
50	Long-term effects of climate and land-use change on larch budmoth outbreaks in the French Alps. Climate Research, 2014, 62, 1-14.	0.4	23
51	Larix decidua Î´18O tree-ring cellulose mainly reflects the isotopic signature of winter snow in a high-altitude glacial valley of the European Alps. Science of the Total Environment, 2017, 579, 230-237.	3.9	21
52	Effects of associating Quercus robur L. and Alnus cordata Loisel. on plantation productivity and water use efficiency. Forest Ecology and Management, 2017, 391, 106-114.	1.4	21
53	Fire Severity Influences Ecophysiological Responses of Pinus pinaster Ait. Frontiers in Plant Science, 2019, 10, 539.	1.7	21
54	Xylem Adjustment in Erica Arborea to Temperature and Moisture Availability in Contrasting Climates. IAWA Journal, 2013, 34, 109-126.	2.7	20

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55	Are wood fibres as sensitive to environmental conditions as vessels in tree rings with intra-annual density fluctuations (IADFs) in Mediterranean species?. Trees - Structure and Function, 2016, 30, 971-983.	0.9	20
56	Wood-trait analysis to understand climatic factors triggering intra-annual density-fluctuations in co-occurring Mediterranean trees. IAWA Journal, 2019, 40, 241-258.	2.7	20
57	Tree-ring responses in Araucaria araucana to two major eruptions of Lonquimay Volcano (Chile). Trees - Structure and Function, 2012, 26, 1805-1819.	0.9	18
58	Fire-scars and polymodal age-structure provide evidence of fire-events in an Aleppo pine population in southern France. Dendrochronologia, 2013, 31, 159-164.	1.0	17
59	Site conditions influence the climate signal of intra-annual density fluctuations in tree rings of Q. ilex L.. Annals of Forest Science, 2018, 75, 1.	0.8	17
60	Effects of thinning intensity on productivity and water use efficiency of Quercus robur L. Forest Ecology and Management, 2020, 473, 118282.	1.4	15
61	Reconstruction of Past Co2 Concentration at a Natural Co2 Vent Site Using Radiocarbon Dating of Tree Rings. Radiocarbon, 2005, 47, 257-263.	0.8	14
62	Climate signals in a multispecies tree-ring network from central and southern Italy and reconstruction of the late summer temperatures since the early 1700s. Climate of the Past, 2017, 13, 1451-1471.	1.3	13
63	Dendrochronological analysis and growth patterns of Polylepis reticulata (Rosaceae) in the Ecuadorian Andes. IAWA Journal, 2019, 40, 331-S5.	2.7	12
64	Rootstock effect on tree-ring traits in grapevine under a climate change scenario. IAWA Journal, 2018, 39, 145-155.	2.7	11
65	Impact of Climate, Stand Growth Parameters, and Management on Isotopic Composition of Tree Rings in Chestnut Coppices. Forests, 2019, 10, 1148.	0.9	11
66	Xylem Plasticity in Pinus pinaster and Quercus ilex Growing at Sites with Different Water Availability in the Mediterranean Region: Relations between Intra-Annual Density Fluctuations and Environmental Conditions. Forests, 2020, 11, 379.	0.9	10
67	First detection of glacial meltwater signature in treeâ€ring Î´¹⁸<scp>O</scp>: Reconstructing past major glacier runoff events at <scp>L</scp>ago <scp>V</scp>erde (<scp>M</scp>iage <scp>G</scp>lacier, <scp>I</scp>taly). Boreas, 2014, 43, 600-607.	1.2	9
68	Treeâ€ring stable isotopes show different ecophysiological strategies in native and invasive woody species of a semiarid riparian ecosystem in the Great Plains of the United States. Ecohydrology, 2019, 12, e2074.	1.1	9
69	Crossing taxonomic and isotopic approaches in charcoal analyses to reveal past climates. New perspectives in Paleobotany from the Paleolithic Neanderthal dwelling-site of La Combette (Vaucluse,) Tj ETQq1 1 0.784314 rg BT /Overl	0.8	8
70	The effect of prescribed burning on the drought resilience of Pinus nigra ssp. salzmannii Dunal (Franco)Âand P. sylvestris L.. Annals of Forest Science, 2020, 77, 1.	0.8	8
71	Jet stream position explains regional anomalies in European beech forest productivity and tree growth. Nature Communications, 2022, 13, 2015.	5.8	8
72	Post-photosynthetic Carbon, Oxygen and Hydrogen Isotope Signal Transfer to Tree Ringsâ€"How Timing of Cell Formations and Turnover of Stored Carbohydrates Affect Intra-annual Isotope Variations. Tree Physiology, 2022, , 429-462.	0.9	7

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73	Mixed-Species Plantation Effects on Soil Biological and Chemical Quality and Tree Growth of a Former Agricultural Land. Forests, 2021, 12, 842.	0.9	6
74	Climate Signals in Stable Isotope Tree-Ring Records. Tree Physiology, 2022, , 537-579.	0.9	6
75	Tree Rings of Pinus ponderosa and Juniperus virginiana Show Different Responses to Stand Density and Water Availability in the Nebraska Grasslands. American Midland Naturalist, 2018, 180, 18.	0.2	5
76	Increasing atmospheric CO2 concentrations outweighs effects of stand density in determining growth and water use efficiency in Pinus ponderosa of the semi-arid grasslands of Nebraska (U.S.A.). Global Ecology and Conservation, 2020, 24, e01274.	1.0	5
77	Evaluating growth and intrinsic water-use efficiency in hardwood and conifer mixed plantations. Trees - Structure and Function, 2021, 35, 1329-1340.	0.9	5
78	New climatic approaches to the analysis of the middle Paleolithic sequences: Combined taxonomic and isotopic charcoal analyses on a Neanderthal settlement, Les Canalettes (Aveyron, France). Quaternary International, 2021, 593-594, 85-94.	0.7	5
79	Tree Species Composition in Mixed Plantations Influences Plant Growth, Intrinsic Water Use Efficiency and Soil Carbon Stock. Forests, 2021, 12, 1251.	0.9	5
80	Tree-ring Î´¹⁸O from an Alpine catchment reveals changes in glacier stream water inputs between 1980 and 2010. Arctic, Antarctic, and Alpine Research, 2019, 51, 250-264.	0.4	4
81	Influence of tree species richness on tree growth and intrinsic water-use efficiency after drought in tree plantations in north-eastern Italy. European Journal of Forest Research, 2020, 139, 869-877.	1.1	4
82	Comparing Methods for the Analysis of Î´13C in Falanghina Grape Must from Different Pedoclimatic Conditions. Horticulturae, 2022, 8, 226.	1.2	3
83	Stable Isotopes in Tree Rings of Mediterranean Forests. Tree Physiology, 2022, , 605-629.	0.9	3
84	Assessing Soil Respiration by Means of Near-Infrared Diode Laser Spectroscopy. Applied Spectroscopy, 2004, 58, 1051-1056.	1.2	2
85	Biomass Growth Rate of Trees from Cameroon Based on ¹⁴C Analysis and Growth Models. Radiocarbon, 2013, 55, 885-893.	0.8	2
86	Editorial: Multiscale Approach to Assess Forest Vulnerability. Frontiers in Plant Science, 2020, 11, 744.	1.7	2
87	Î´13C referential in three Pinus species for a first archaeological application to Paleolithic contexts: â€œBetween intra- and inter-individual variation and carbonization effectâ€. Journal of Archaeological Science: Reports, 2018, 20, 775-783.	0.2	0
88	A Smart Multi-scale and Multi-temporal System to Support Precision and Sustainable Agriculture from Satellite Images. Proceedings (mdpi), 2019, 30, 17.	0.2	0