

# Juan Pedro Ferrio

## List of Publications by Year in descending order

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89  
papers

4,962  
citations

101496

36  
h-index

98753

67  
g-index

96  
all docs

96  
docs citations

96  
times ranked

5283  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mesophyll diffusion conductance to CO <sub>2</sub> : An unappreciated central player in photosynthesis. <i>Plant Science</i> , 2012, 193-194, 70-84.	1.7	563
2	Stable isotopes in tree rings: towards a mechanistic understanding of isotope fractionation and mixing processes from the leaves to the wood. <i>Tree Physiology</i> , 2014, 34, 796-818.	1.4	359
3	Drought effects on allocation of recent carbon: from beech leaves to soil CO <sub>2</sub> efflux. <i>New Phytologist</i> , 2009, 184, 950-961.	3.5	280
4	Water management practices and climate in ancient agriculture: inferences from the stable isotope composition of archaeobotanical remains. <i>Vegetation History and Archaeobotany</i> , 2005, 14, 510-517.	1.0	185
5	<sup>13</sup> C and tree-ring width reflect different drought responses in <i>Quercus ilex</i> and <i>Pinus halepensis</i> . <i>Oecologia</i> , 2003, 137, 512-518.	0.9	182
6	Temporal dynamics of the carbon isotope composition in a <i>Pinus sylvestris</i> stand: from newly assimilated organic carbon to respired carbon dioxide. <i>Oecologia</i> , 2008, 156, 737-750.	0.9	140
7	The long way down—are carbon and oxygen isotope signals in the tree ring uncoupled from canopy physiological processes?. <i>Tree Physiology</i> , 2011, 31, 1088-1102.	1.4	137
8	On the metabolic origin of the carbon isotope composition of CO <sub>2</sub> evolved from darkened light-acclimated leaves in <i>Ricinus communis</i> . <i>New Phytologist</i> , 2009, 181, 374-386.	3.5	125
9	Adsorption of polyethylene microbeads and physiological effects on hydroponic maize. <i>Science of the Total Environment</i> , 2020, 741, 140216.	3.9	125
10	Isotope-ratio infrared spectroscopy: a reliable tool for the investigation of plant-water sources?. <i>New Phytologist</i> , 2015, 207, 914-927.	3.5	120
11	The historical perspective of dryland agriculture: lessons learned from 10 000 years of wheat cultivation. <i>Journal of Experimental Botany</i> , 2006, 58, 131-145.	2.4	114
12	A retrospective, dual-isotope approach reveals individual predispositions to winter-drought induced tree dieback in the southernmost distribution limit of Scots pine. <i>Plant, Cell and Environment</i> , 2013, 36, 1435-1448.	2.8	109
13	Stable carbon and nitrogen isotopes and quality traits of fossil cereal grains provide clues on sustainability at the beginnings of Mediterranean agriculture. <i>Rapid Communications in Mass Spectrometry</i> , 2008, 22, 1653-1663.	0.7	106
14	Intraspecific variation in the use of water sources by the circum-Mediterranean conifer <i>Pinus halepensis</i> . <i>New Phytologist</i> , 2015, 208, 1031-1041.	3.5	105
15	Climate-related variability in carbon and oxygen stable isotopes among populations of Aleppo pine grown in common-garden tests. <i>Trees - Structure and Function</i> , 2008, 22, 759-769.	0.9	96
16	Carbon and oxygen isotope ratios in wood constituents of <i>Pinus halepensis</i> as indicators of precipitation, temperature and vapour pressure deficit. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2005, 57, 164-173.	0.8	93
17	Processes driving nocturnal transpiration and implications for estimating land evapotranspiration. <i>Scientific Reports</i> , 2015, 5, 10975.	1.6	85
18	The stomatal effect on leaf water enrichment correlates with leaf hydraulic conductance and mesophyll conductance for CO <sub>2</sub> . <i>Plant, Cell and Environment</i> , 2012, 35, 611-625.	2.8	79

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19	Stable isotopes in archaeobotanical research. <i>Vegetation History and Archaeobotany</i> , 2015, 24, 215-227.	1.0	74
20	Carbon isotope composition of fossil charcoal reveals aridity changes in the NW Mediterranean Basin. <i>Global Change Biology</i> , 2006, 12, 1253-1266.	4.2	72
21	Agronomic conditions and crop evolution in ancient Near East agriculture. <i>Nature Communications</i> , 2014, 5, 3953.	5.8	72
22	The crystallization water of gypsum rocks is a relevant water source for plants. <i>Nature Communications</i> , 2014, 5, 4660.	5.8	70
23	Carbon and oxygen isotope ratios in wood constituents of <i>Pinus halepensis</i> as indicators of precipitation, temperature and vapour pressure deficit. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 57, 164.	0.8	68
24	Relationships of grain $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ with wheat phenology and yield under water-limited conditions. <i>Annals of Applied Biology</i> , 2007, 150, 207-215.	1.3	61
25	Does higher yield potential improve barley performance in Mediterranean conditions?. <i>Field Crops Research</i> , 2005, 91, 149-160.	2.3	60
26	Assessment of durum wheat yield using visible and near-infrared reflectance spectra of canopies. <i>Field Crops Research</i> , 2005, 94, 126-148.	2.3	59
27	Woody clockworks: circadian regulation of nighttime water use in <i>Eucalyptus globulus</i> . <i>New Phytologist</i> , 2013, 200, 743-752.	3.5	56
28	Use of carbon isotope composition in monitoring environmental changes. <i>Management of Environmental Quality</i> , 2003, 14, 82-98.	2.2	54
29	Short-term dynamics of evaporative enrichment of xylem water in woody stems: implications for ecohydrology. <i>Tree Physiology</i> , 2017, 37, 511-522.	1.4	53
30	Living in Drylands: Functional Adaptations of Trees and Shrubs to Cope with High Temperatures and Water Scarcity. <i>Forests</i> , 2020, 11, 1028.	0.9	52
31	Dynamics of competition over water in a mixed oak-pine Mediterranean forest: Spatio-temporal and physiological components. <i>Forest Ecology and Management</i> , 2016, 382, 214-224.	1.4	51
32	Effect of water availability on leaf water isotopic enrichment in beech seedlings shows limitations of current fractionation models. <i>Plant, Cell and Environment</i> , 2009, 32, 1285-1296.	2.8	50
33	Drought response of mesophyll conductance in forest understory species - impacts on water-use efficiency and interactions with leaf water movement. <i>Physiologia Plantarum</i> , 2014, 152, 98-114.	2.6	44
34	Contrasting ecophysiological strategies related to drought: the case of a mixed stand of Scots pine ( <i>Pinus sylvestris</i> ) and a submediterranean oak ( <i>Quercus subpyrenaica</i> ). <i>Tree Physiology</i> , 2017, 37, 1478-1492.	1.4	43
35	Water fluxes within beech stands in complex terrain. <i>International Journal of Biometeorology</i> , 2010, 54, 23-36.	1.3	42
36	Unravelling spatiotemporal tree-ring signals in Mediterranean oaks: a variance-covariance modelling approach of carbon and oxygen isotope ratios. <i>Tree Physiology</i> , 2014, 34, 819-838.	1.4	42

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37	Holocene changes in precipitation seasonality in the western Mediterranean Basin: a multi-species approach using $\delta^{13}\text{C}$ of archaeobotanical remains. <i>Journal of Quaternary Science</i> , 2012, 27, 192-202.	1.1	40
38	Increasing drought effects on five European pines modulate $\delta^{13}\text{C}$ growth coupling along a Mediterranean altitudinal gradient. <i>Functional Ecology</i> , 2017, 31, 1359-1370.	1.7	39
39	Deciduous and evergreen oaks show contrasting adaptive responses in leaf mass per area across environments. <i>New Phytologist</i> , 2021, 230, 521-534.	3.5	38
40	Effect of salicylic acid treatment on tomato plant physiology and tolerance to potato virus X infection. <i>European Journal of Plant Pathology</i> , 2014, 138, 331-345.	0.8	36
41	Estimating grain weight in archaeological cereal crops: a quantitative approach for comparison with current conditions. <i>Journal of Archaeological Science</i> , 2004, 31, 1635-1642.	1.2	35
42	Intraspecific variation in juvenile tree growth under elevated $\text{CO}_2$ alone and with $\text{O}_3$ : a meta-analysis. <i>Tree Physiology</i> , 2016, 36, 682-693.	1.4	34
43	Intra-specific association between carbon isotope composition and productivity in woody plants: A meta-analysis. <i>Plant Science</i> , 2016, 251, 110-118.	1.7	34
44	Salicylic acid mitigates physiological and proteomic changes induced by the SPCP1 strain of Potato virus X in tomato plants. <i>Physiological and Molecular Plant Pathology</i> , 2016, 93, 1-11.	1.3	33
45	Vertical sheep mobility along the altitudinal gradient through stable isotope analyses in tooth molar bioapatite, meteoric water and pastures: A reference from the Ebro valley to the Central Pyrenees. <i>Quaternary International</i> , 2018, 484, 94-106.	0.7	32
46	Circadian rhythms have significant effects on leaf-to-canopy scale gas exchange under field conditions. <i>GigaScience</i> , 2016, 5, 43.	3.3	31
47	A map of autumn precipitation for the third millennium BP in the Eastern Iberian Peninsula from charcoal carbon isotopes. <i>Journal of Geochemical Exploration</i> , 2009, 102, 157-165.	1.5	30
48	Do $\delta^2\text{H}$ and $\delta^{18}\text{O}$ in leaf water reflect environmental drivers differently?. <i>New Phytologist</i> , 2022, 235, 41-51.	3.5	29
49	Carbon isotope discrimination, radial growth, and NDVI share spatiotemporal responses to precipitation in Aleppo pine. <i>Trees - Structure and Function</i> , 2015, 29, 223-233.	0.9	27
50	Near infrared reflectance spectroscopy as a potential surrogate method for the analysis of $\text{D}_{13}\text{C}$ in mature kernels of durum wheat. <i>Australian Journal of Agricultural Research</i> , 2001, 52, 809.	1.5	26
51	Endogenous circadian rhythms in pigment composition induce changes in photochemical efficiency in plant canopies. <i>Plant, Cell and Environment</i> , 2017, 40, 1153-1162.	2.8	26
52	Revisiting the Functional Basis of Sclerophylly Within the Leaf Economics Spectrum of Oaks: Different Roads to Rome. <i>Current Forestry Reports</i> , 2020, 6, 260-281.	3.4	26
53	Climate at the onset of western Mediterranean agriculture expansion: Evidence from stable isotopes of sub-fossil oak tree rings in Spain. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2011, 299, 541-551.	1.0	24
54	High-carotenoid maize: development of plant biotechnology prototypes for human and animal health and nutrition. <i>Phytochemistry Reviews</i> , 2018, 17, 195-209.	3.1	24

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55	Night and day " Circadian regulation of night-time dark respiration and light-enhanced dark respiration in plant leaves and canopies. <i>Environmental and Experimental Botany</i> , 2017, 137, 14-25.	2.0	23
56	The stable isotope ecology of terrestrial plant succession. <i>Plant Ecology and Diversity</i> , 2011, 4, 117-130.	1.0	22
57	Water use segregation among plants with contrasting root depth and distribution along gypsum hills. <i>Journal of Vegetation Science</i> , 2017, 28, 1107-1117.	1.1	20
58	Grain weight changes over time in ancient cereal crops: Potential roles of climate and genetic improvement. <i>Journal of Cereal Science</i> , 2006, 44, 323-332.	1.8	19
59	Short-term dynamics of the carbon isotope composition of CO <sub>2</sub> emitted from a wheat agroecosystem " physiological and environmental controls. <i>Plant Biology</i> , 2011, 13, 115-125.	1.8	17
60	Contrasting functional strategies following severe drought in two Mediterranean oaks with different leaf habit: <i>Quercus faginea</i> and <i>Quercus ilex</i> subsp. <i>rotundifolia</i> . <i>Tree Physiology</i> , 2021, 41, 371-387.	1.4	17
61	Simulation of stand transpiration based on a xylem water flow model for individual trees. <i>Agricultural and Forest Meteorology</i> , 2013, 182-183, 31-42.	1.9	16
62	Gypsum-exclusive plants accumulate more leaf S than non-exclusive species both in and off gypsum. <i>Environmental and Experimental Botany</i> , 2021, 182, 104294.	2.0	15
63	Utilisation des isotopes stables de l'oxygène des cernes d'arbres pour déterminer l'origine des inondations passées: premiers résultats pour la péninsule ibérique. <i>Quaternaire</i> , 2015, , 67-80.	0.1	15
64	Estimation of grain yield by near-infrared reflectance spectroscopy in durum wheat. <i>Euphytica</i> , 2004, 137, 373-380.	0.6	14
65	Scarce population genetic differentiation but substantial spatiotemporal phenotypic variation of water-use efficiency in <i>Pinus sylvestris</i> at its western distribution range. <i>European Journal of Forest Research</i> , 2018, 137, 863-878.	1.1	14
66	Isoscapes of tree-ring carbon-13 perform like meteorological networks in predicting regional precipitation patterns. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 352-360.	1.3	13
67	Evaluation of the effect of the 2011 Tsunami on coastal forests by means of multiple isotopic analyses of tree-rings. <i>Isotopes in Environmental and Health Studies</i> , 2018, 54, 494-507.	0.5	11
68	Agricultural expansion and settlement economy in Tell Halula (Mid-Euphrates valley): A diachronic study from early Neolithic to present. <i>Journal of Arid Environments</i> , 2012, 86, 104-112.	1.2	10
69	Hydraulic Constraints to Whole-Tree Water Use and Respiration in Young <i>Cryptomeria</i> Trees under Competition. <i>Forests</i> , 2018, 9, 449.	0.9	10
70	Root Architecture and Functional Traits of Spring Wheat Under Contrasting Water Regimes. <i>Frontiers in Plant Science</i> , 2020, 11, 581140.	1.7	10
71	Reconstruction of Climate and Crop Conditions in the Past Based on the Carbon Isotope Signature of Archaeobotanical Remains. <i>Journal of Nano Education (Print)</i> , 2007, 1, 319-332.	0.3	9
72	Factors preventing the performance of oxygen isotope ratios as indicators of grain yield in maize. <i>Planta</i> , 2016, 243, 355-368.	1.6	9

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73	Plant's gypsum affinity shapes responses to specific edaphic constraints without limiting responses to other general constraints. <i>Plant and Soil</i> , 2021, 462, 297-309.	1.8	9
74	Stable carbon isotopes in archaeological plant remains. <i>Stratigraphy &amp; Timescales</i> , 2020, , 107-145.	0.2	8
75	Initial burst of root development with decreasing respiratory carbon cost in <i>Fagus crenata</i> Blume seedlings. <i>Plant Species Biology</i> , 2021, 36, 146-156.	0.6	8
76	Ground-Penetrating Radar as phenotyping tool for characterizing intraspecific variability in root traits of a widespread conifer. <i>Plant and Soil</i> , 2021, 468, 319-336.	1.8	8
77	Summer and winter can equally stress holm oak ( <i>Quercus ilex</i> L.) in Mediterranean areas: A physiological view. <i>Flora: Morphology, Distribution, Functional Ecology of Plants</i> , 2022, 290, 152058.	0.6	8
78	Postphotosynthetic Fractionation in Leaves, Phloem and Stem. <i>Tree Physiology</i> , 2022, , 381-396.	0.9	8
79	Consistent scaling of whole-shoot respiration between Moso bamboo ( <i>Phyllostachys pubescens</i> ) and trees. <i>Journal of Plant Research</i> , 2021, 134, 989-997.	1.2	7
80	Reconstruction of Climate and Crop Conditions in the Past Based on the Carbon Isotope Signature of Archaeobotanical Remains. , 2007, , 319-332.		7
81	Circadian rhythms regulate the environmental responses of net CO <sub>2</sub> exchange in bean and cotton canopies. <i>Agricultural and Forest Meteorology</i> , 2017, 239, 185-191.	1.9	6
82	Southeastern Rear Edge Populations of <i>Quercus suber</i> L. Showed Two Alternative Strategies to Cope with Water Stress. <i>Forests</i> , 2020, 11, 1344.	0.9	5
83	Point processes statistics of stable isotopes: analysing water uptake patterns in a mixed stand of Aleppo pine and Holm oak. <i>Forest Systems</i> , 2015, 24, 009.	0.1	5
84	Disentangling water sources in a gypsum plant community. Gypsum crystallization water is a key source of water for shallow-rooted plants. <i>Annals of Botany</i> , 2022, 129, 87-100.	1.4	4
85	Oak Competition Dominates Interspecific Interactions in Growth and Water-Use Efficiency in a Mixed Pine-Oak Mediterranean Forest. <i>Forests</i> , 2021, 12, 1093.	0.9	3
86	Minimum Leaf Conductance (g <sub>min</sub> ) Is Higher in the Treeline of <i>Pinus uncinata</i> Ram. in the Pyrenees: Michaelis-Hypothesis Revisited. <i>Frontiers in Plant Science</i> , 2021, 12, 786933.	1.7	3
87	Changes in the Abundance of Monoterpenes from Breathable Air of a Mediterranean Conifer Forest: When Is the Best Time for a Human Healthy Leisure Activity?. <i>Forests</i> , 2022, 13, 965.	0.9	3
88	Editorial: The Green Side of the Water Cycle: New Advances in the Study of Plant Water Dynamics. <i>Frontiers in Plant Science</i> , 2020, 11, 582846.	1.7	2
89	Cell-level anatomy explains leaf age-dependent declines in mesophyll conductance and photosynthetic capacity in the evergreen Mediterranean oak <i>Quercus ilex</i> subsp. <i>rotundifolia</i> . <i>Tree Physiology</i> , 2022, , .	1.4	2